FLORIDA WILDLIFE

May-June 1984

WILD·HOG·HUNTERS

BE·AWARE!

FLORIDA·WILD·HOGS·MAY·INFECT·YOU·WITH

SWINE · BRUCELLOSIS

Hunting wild hogs is a longstanding tradition with Florida hunters. These popular game animals are found in almost every county of the state, and during the 1980-81 hunting season, more than 20,000 hunters killed more than 100,000 of them.

Until recent scientific studies were made of Florida's wild hog population, it was not known that perhaps half of them could have brucellosis, and that hunters might become infected when these game animals are dressed.

If you have dressed wild hogs, and have symptoms of illness that may be similar to flu symptoms (headaches, fever, muscle soreness, nausea or breathing difficulties), see your physician. A simple blood test can diagnose swine brucellosis

PRECAUTIONS WHICH MAY REDUCE RISK:

1. Always wear disposable plastic or rubber gloves when dressing and cleaning wild hogs. Keep several pair in your field hunting supply kit. Avoid direct contact with blood whenever possible.
2. As soon as possible, wash with soap and hot water after dressing wild hogs.
3. Gloves and remains from dressing wild hogs should be buried or burned.
4. Meat from wild hogs should always be thoroughly cooked before consumption.

FLORIDA GAME AND
FRESH WATER FISH
COMMISSION

FERENCE ROOM

FLORIDA WILDLIFE

Dedicated to the appreciation and enjoyment of our wildlife heritage, and to a fuller understanding of efforts directed toward the protection, restoration, enhancement and wise use of our natural resources.

Volume 38, No. 1 **May-June 1984**

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THE COVERS

A young angler resigns herself to baiting her own hook, on the front cover photograph by Jane T. Adams. On our back cover, by Michael Francis, the morning dew glistens on a spider's web like jewels in the dark.

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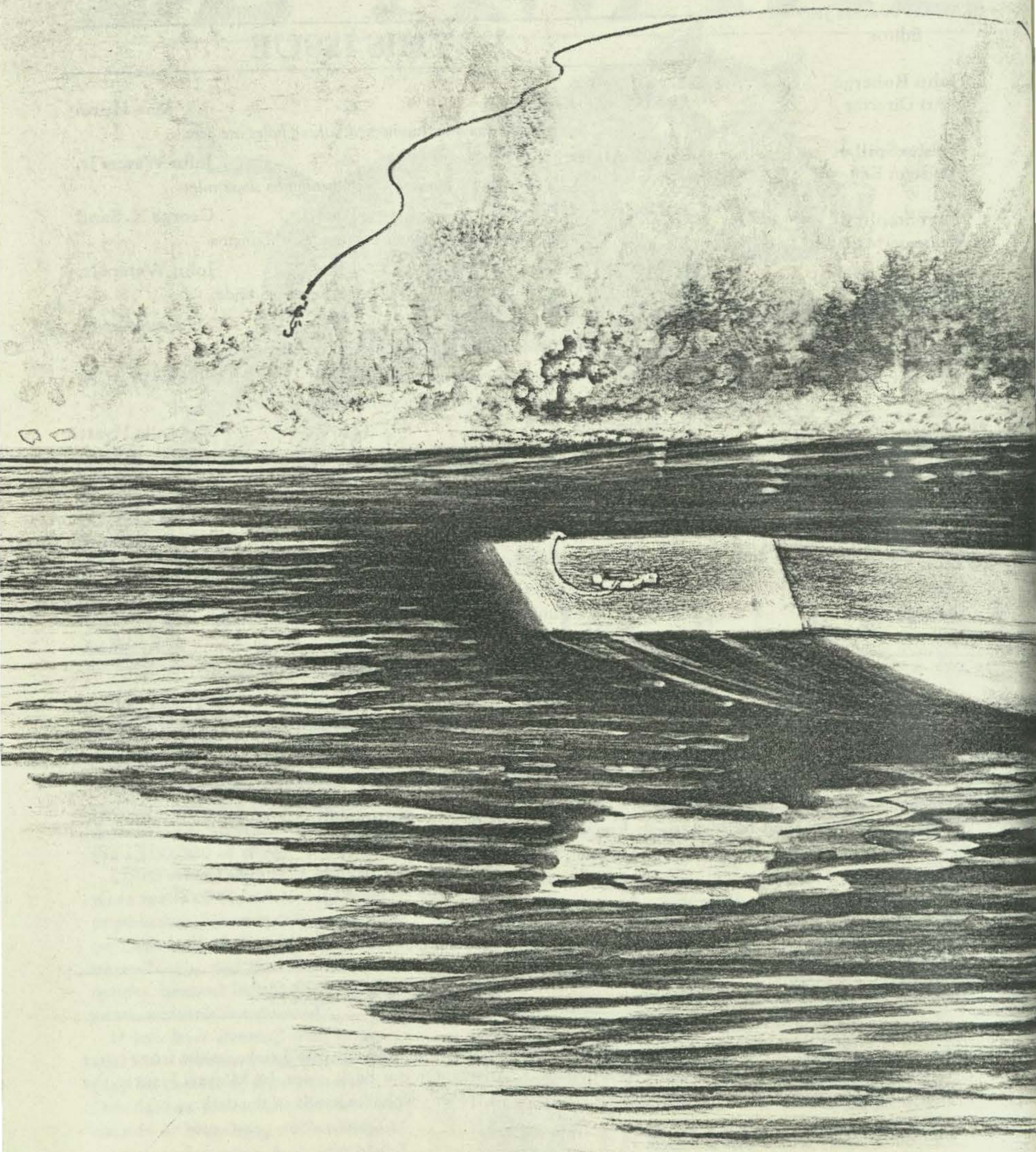
Fishing the Big Scrub

By Max Hunn



If you thrill to the sight of a startled deer bounding unexpectedly across a sandy road, or the raucous cries of herons and ospreys resenting your presence, then you're the type of angler who can enjoy fishing the ponds and lakes of the Ocala National Forest.

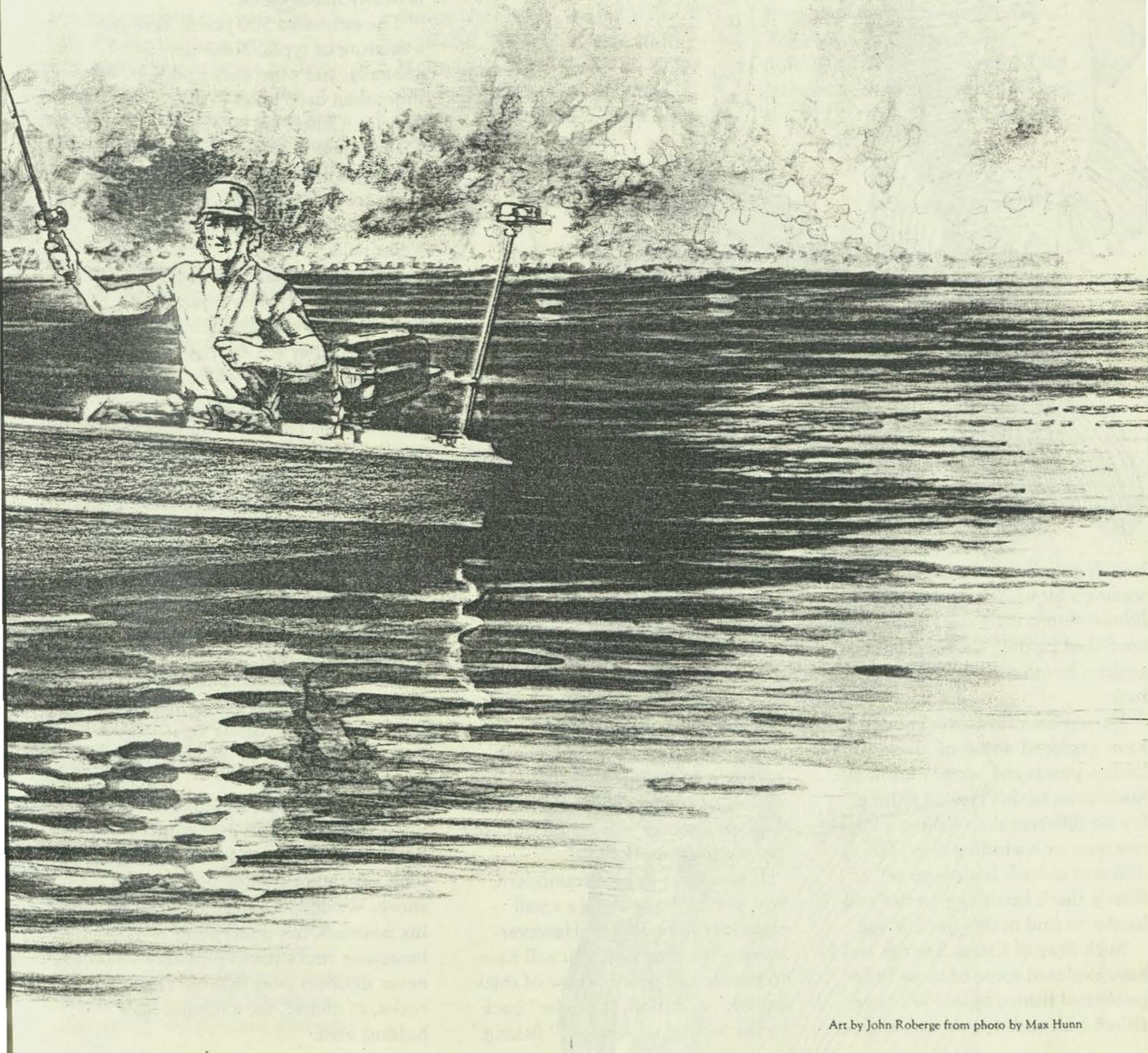
Once the forest lakes were fished little, but today the situation is changing. As fishing pressure increases on the widely publicized big reservoirs and lakes, anglers are seeking to get away from it all. The Ocala is a natural for such a retreat, for there you can fish a wilderness solitude that's becoming increasingly difficult to find.

The Big Scrub, as the forest is often called, sprawls across some 362,000 acres—more than 565 square miles—of sandy hills in central Florida. It has some 500 named and unnamed lakes and ponds. Fishing pressure is minimal in many cases, and the fish are there.

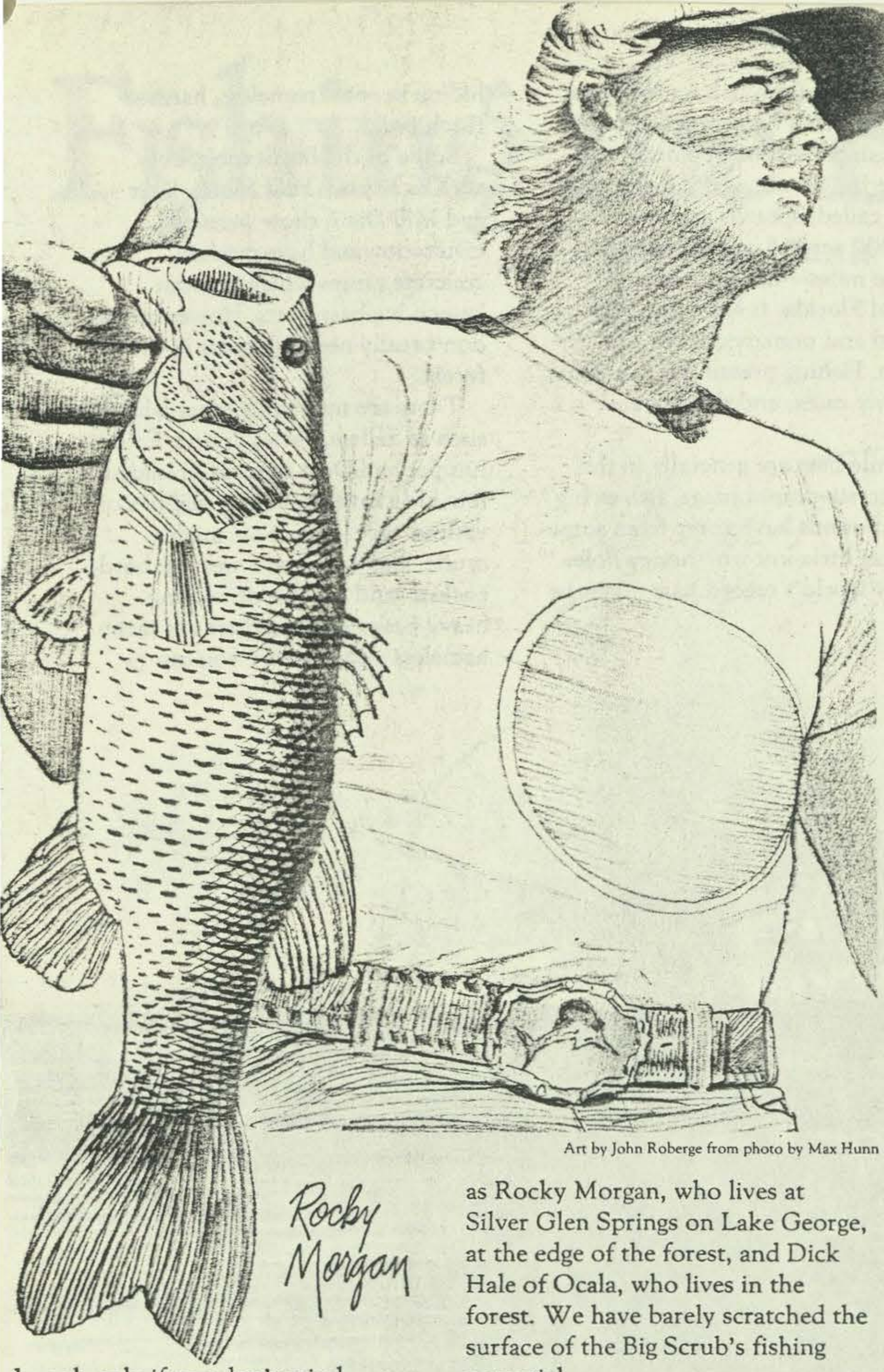
While bass are generally in the two- to six-pound range, fish as big as 17 pounds have come from some of these little-known "honey holes." A new world's record bass might be hiding in some nameless, hard-to-reach pond.

Some of the Big Scrub's lakes, such as Bryant, Half Moon, Kerr and Mill Dam, show signs of civilization and have modern, concrete ramps where you can launch big bass boats. However, you don't really need big boats in the forest.

There are numerous other lakes, such as Sellers, Farles Prairie, Eaton, Jumper and Dorr to mention only a few, that have launching facilities of various types. Some are mighty crude and some are merely hard-packed sand capable of holding heavy bass rigs. And there are many nameless ponds where you can ▷



Art by John Roberge from photo by Max Hunn



Art by John Roberge from photo by Max Hunn

launch only if you don't mind wading a bit while carrying a light johnboat into the water. Such ponds are fished by only the hardiest anglers, but they do harbor scrappy bass.

Having been fortunate enough to have explored some of these little-known ponds and lakes, I know the fascination of this type of fishing. It's far different than fishing a huge reservoir or a winding river, far different indeed. It's a type of fishing that's becoming harder and harder to find in this frenetic age.

Buck Bray of Citrus Springs and I have explored some of these little-publicized fishing holes. We have fished with such forest-wise anglers as Rocky Morgan, who lives at Silver Glen Springs on Lake George, at the edge of the forest, and Dick Hale of Ocala, who lives in the forest. We have barely scratched the surface of the Big Scrub's fishing potential.

Forest fishing is unlike most angling today—these holes are difficult to reach. To fish many of them, you need a pickup truck. A four-wheel drive is ideal, although not absolutely necessary. A johnboat, 12 to 14 feet in length and light enough to be handled by a couple of anglers, and a pint-sized outboard motor will round out your gear requirements.

If you want to be ultramodern, you also can take along a small electric trolling motor. However, more often than not, you will have to paddle and pole because of thick aquatic vegetation. It can be "back to the turn of the century" fishing.

Most of these fishing holes can only be reached by graded or ungraded sand or clay roads. They can be tricky to drive. When wet, some are extremely soggy, and others are negotiable only with four-wheel drives. If you're inexperienced in driving such woods roads, stick to the ones that are maintained best; otherwise, you can get into trouble.

Also, there are nameless ponds you can reach only by walking, but you better be an experienced woodsman with sturdy legs and either know the forest or have a guide who does. It's mighty easy to get misplaced in the Big Scrub, as it is in any major forest.

The estimated 500 ponds here are a mixture of types. Some dry up annually, and others are nothing more than deep holes in vast prairies. Others are tree-lined beauty spots with surprisingly deep water and expanse. Undoubtedly, there are bass in these waters that have never seen a lure, and probably never will.

The angling challenge of these spots is not only their remoteness, but also their special angling quirks. Generally, they are extremely clear. These are bass holes where you have to make long casts to avoid spooking the fish, and you have to use light lines.

Twelve-pound test is about as heavy as you can get away with. Heavier lines only spook the fish. Six- and eight-pound tests are even better suited to the clear conditions. You may lose a few bass with these light lines, but going light is essential if you want action.

Morgan is a certified SCUBA diver, and he's used this ability to improve his bass fishing knowledge by exploring some of his favorite ponds underwater.

Surprisingly, he's found each pond varies when studied from beneath the surface, although they look very similar when viewed from shore. Wildcat, for example, one of his favorites, has underwater limestone rocks you'd probably never discover boat fishing. The rocks, of course, are a natural bass holding area.

Other lakes have deep grassy valleys, and the bigmouths linger around their edges. These underwater valleys are the Big Scrub's version of fish-holding structures.

Local anglers have learned that, usually, the bass are in the center of the lakes and not around the edges—except perhaps early and late in the day when they come into the shallows to feed. It's wise to fish the center of the lakes, particularly over deep grass beds.

Big Scrub lakes fall into two general categories. The first is the prairie ponds which, depending upon rainfall, can almost go dry, but which still have sufficient deep holes for brood stock to survive. The others are the sinks—deeper limestone holes that never go dry.

There's another quirk to the forest lakes—the varying times for catching big bass. The biggest bass are caught during the summer in the prairie lakes, while the sinkholes produce their biggest ones during the early spring spawning period.

Morgan theorizes the big fish are caught in the shallower prairie lakes during the summer because they're driven into the ponds by falling water levels in the swamps which feed them.

When the water is high and the prairies flooded, at the end of the rainy season, the bucketmouths prefer to roam the swamps. In late spring warm weather, when water levels tend to fall (just before the normal rainy season begins) the lunkers have to move back into the deeper holes in the prairies. There, they are more available to anglers. It's not the calendar, but the water level that triggers the big bass catches in these prairie lakes.

You don't need a lot of tackle to fish these ponds. They're ideal for light lines from four- to 10-pound test with matching rods and reels. Six-inch worms are favored, with purple grape, purple firetail, and blue the preferred colors. However, don't hesitate to experiment if the bass are reluctant to hit. Forest bigmouths can be as temperamental as any of their brethren elsewhere.

In some Big Scrub lakes, shallow-diving lures such as Rebel and Bagley minnow-types are successful. Also used are very shallow-running crank baits, and topwater propeller and stick baits. Black and silver, and black and gold are the preferred plug colors, although sometimes Tennessee shad and white produce. Each lake is a bit different as to productive colors and they all change from time to time.

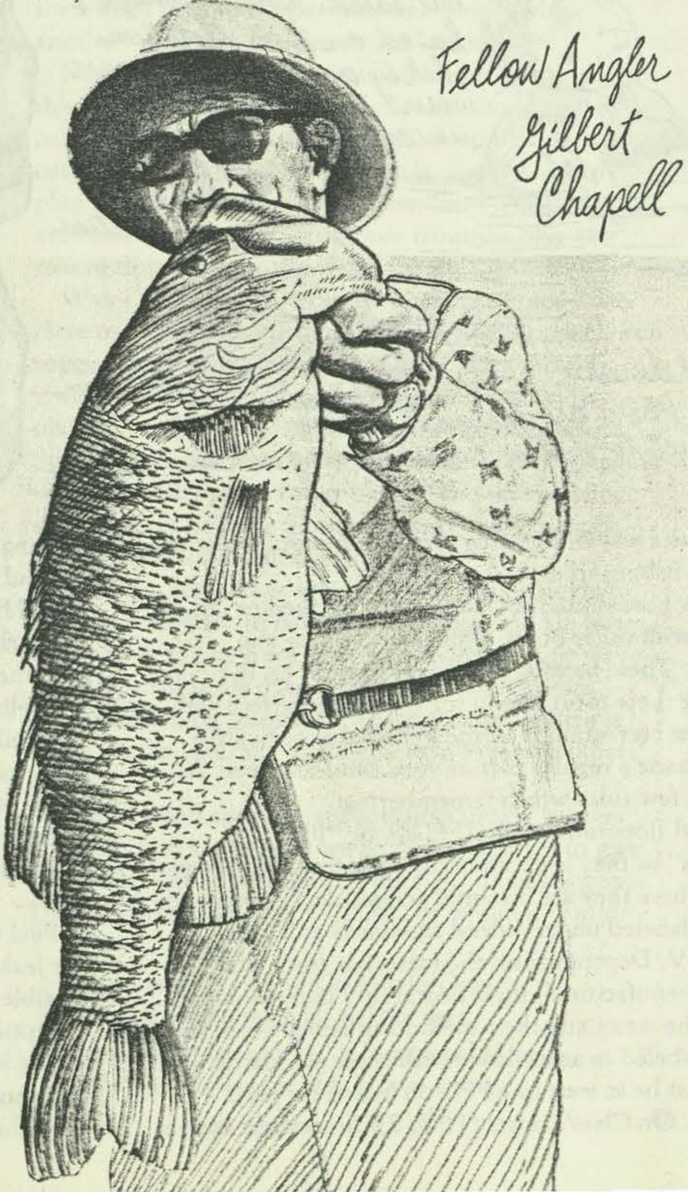
Of course, as with most Florida waters, the best bait for big bass is big shiners, preferably the native wild golden ones. However, bigmouths here will also hit commercially raised shiners.

Live bait does produce. Ken Thomas of Illinois, visiting Florida during late winter, landed a 14-pound, 3-ounce bass from Half Moon Lake. That wasn't his only wall mount. He previously had boated an 11-pounder and a nine-pounder. Shiners really do pay off.

Live bait can be fished by trolling, a particularly effective method, or by anchoring and fishing the pond edges where there is good cover. You can use either a float or freeline, depending upon the particular circumstances of the moment. Just remember to hang on to your rod!

You can find many of these lakes by exploring the forest roads (assuming you have the proper vehicle and boat). But, unless you're an experienced woodsman, you'll do better to fish with a Big Scrub veteran.

You may obtain a map of the Ocala National Forest from the various district ranger stations or from the USDA Forest Service, 227 North Bronough Street, Suite 4061, Tallahassee, FL 32301 (telephone 904/681-7265). There is a $1.00 charge for each map. ☐



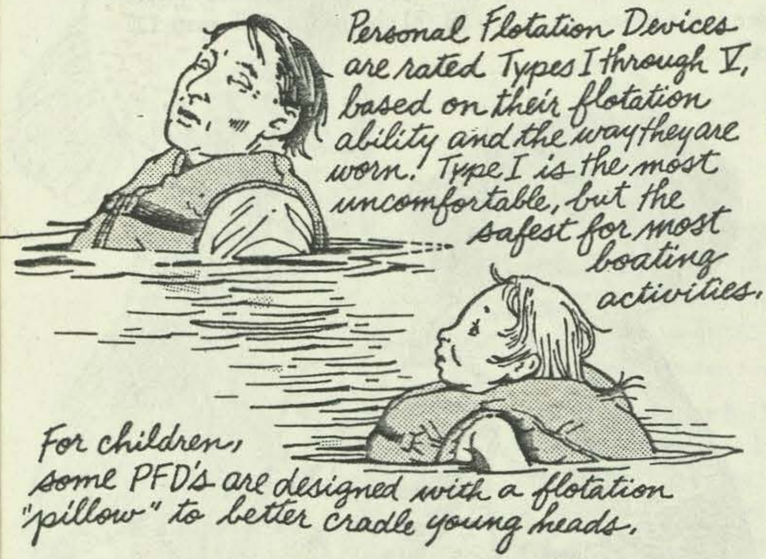
Art by John Roberge from photo by Max Hunn

SAFETY AFLOAT

About half a million pleasure boats are registered in Florida, and the state's tourists and residents participate in more than 20 million boat outings a year. From the Keys to Fernandina Beach to Pensacola, Florida's bays, lakes and rivers are covered by crafts of every description—cruisers, bass boats, johnboats, canoes, ski boats, sailboats—every day, year-round.

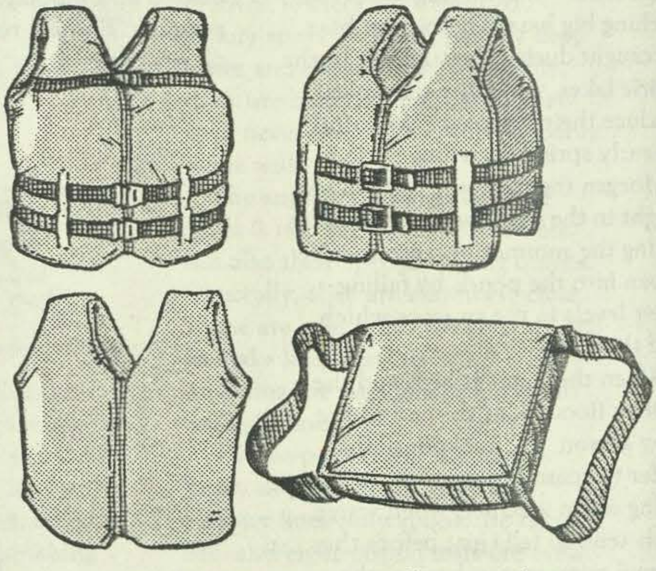
Most of these outings are pleasant and safe, but a few each year are tragedies. They range from personal injuries to deaths and include property damages as well. With the rapid rise in boating as a popular recreational venture, there has been a corresponding increase in accidents on the water.

Common sense and courtesy are beneficial to everyone afloat. Most people exercise ample amounts of both, but accidents still happen even to experienced, seasoned boaters. No one ever sets sail or motors away with intention of finding trouble, but nevertheless, trouble has a way of invading even the tranquil scene of a favorite fishing hole.



Personal Flotation Devices are rated Types I through V, based on their flotation ability and the way they are worn. Type I is the most uncomfortable, but the safest for most boating activities.

For children, some PFD's are designed with a flotation "pillow" to better cradle young heads.



Disaster possibilities include getting hooked or cut, colliding with other boats, capsizing, burning and drowning. These hazards are always present on the water, but there is no reason for them to interfere with wholesome recreation if a little knowledge of boating safety is made a regular part of your outdoors lore. So, here are a few rules worth remembering:

Personal flotation devices (PFDs), or "life preservers" as they are commonly called, should always be kept where they are instantly accessible. Five types of PFDs are labeled under federal standards as Types I, II, III, IV or V. Depending on the materials from which they are manufactured, their floatability over extended times in the water and their method of being worn, they must be labeled in accordance with these standards. There must be at least one PFD on board for each passenger. On Class I boats (16 to 25 feet except canoes and kayaks), there should also be a throwable Type IV PFD, such as a ring buoy. Class A (less than 16 feet) boats are permitted to use Type IV PFDs.

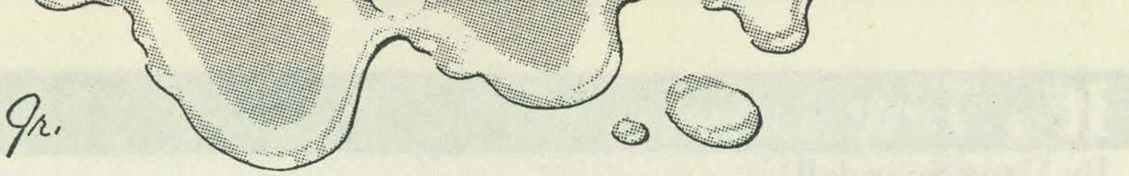
The safest PFD is Type I, which is designed to keep your face floating above the water surface, even if you are unconscious. For the most safety conscious boater, Type I will usually be the more expensive, but safest choice. They are also the most uncomfortable to wear.

Type II is a buoyant vest which is strapped on. Type III includes special purpose "life preservers" such as water skiing belts. Type IV is a nonwearable buoyant cushion or float, and includes ring buoys. Type V is a special class of life preservers designed especially for canoeing, rafting and kayaking.

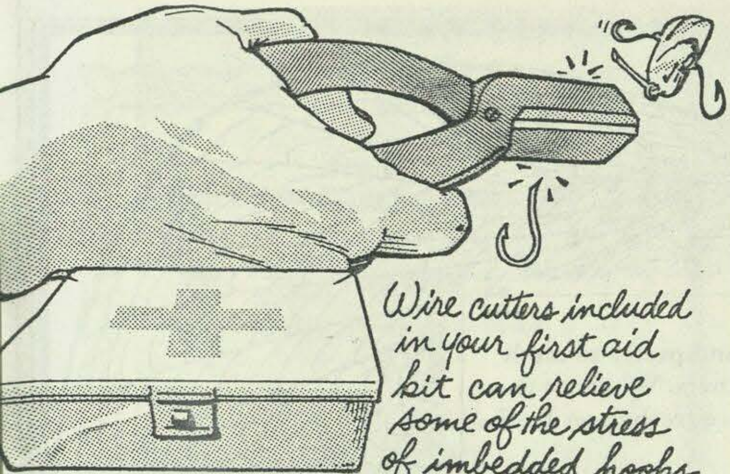
Fires on board are common enough to merit particular attention to gasoline and other flammable liquids. Fuel vapors should always be ventilated away before initiating any electrical activity—especially starting an engine. Use your nose as well as your brain around fuels, and keep a fire extinguisher of a type for liquid fuel fires at a safe distance from fuel tanks. If the tanks should catch fire, you don't want to have to jump into the flames for the extinguisher!

Fueling should always be done in good light so leaks and spills can be seen and, when possible, at the dock or before launching. Never fuel up while smoking, nor allow others to smoke around fueling operations. Before fueling, engines should be turned off, as well as any other equipment in the vicinity that may produce a spark.

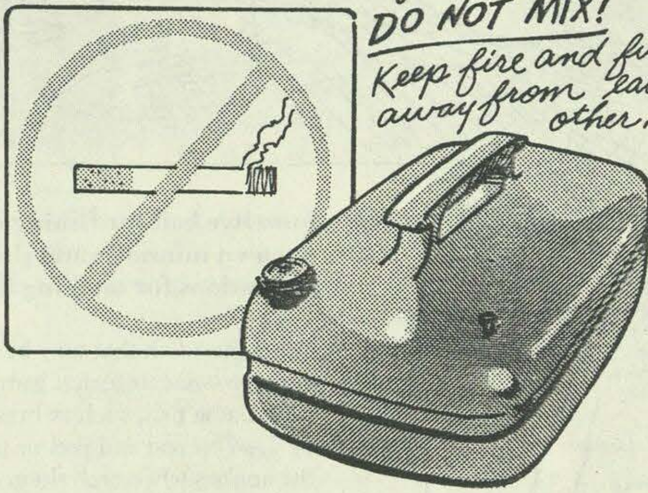
Fuel tanks and lines should be inspected periodically for leaks. The common type of remote fuel tanks with flexible hoses, used on most modern outboards, is no exception. They are especially prone to leak at the ends of the lines where the tank or engine connects. Leaky lines and connectors should be properly repaired to stop the leak or be replaced.



By John Waters Jr.



Wire cutters included in your first aid kit can relieve some of the stress of imbedded hooks until a doctor can be reached.



Smoking and fuel DO NOT MIX! Keep fire and fuels away from each other.

Open fires, such as you'd have in a portable charcoal grill, do not belong on boats. Grills are best used on land where the chance of spilling hot coals in the boat doesn't exist.

Overloading is a primary cause of capsizing and drownings. Small boats that might be stable in calm waters may easily tip over in rough water or high winds. Many boats carry a safe loading capacity plate on their hulls and the weight restrictions should be followed.

For conventional, smaller, single-hull boats, a simple experiment can be done to determine safe loading capacity if it is unknown. In shallow water near shore (but deep enough to completely float the boat), two-thirds of the weight (persons plus gear) is shifted to one side, while the other one-third is distributed along the center, over the keel. Next, if you are still dry, observe the amount of the boat's weighted side that remains above the water. There should be a safety margin to allow for rolling in rough water or wind conditions.

Boats do not have brakes, so docking should be done slowly. When currents are present, especially unfamiliar ones, extra care should be taken to avoid their influence. It's not only unsafe, but absolutely no fun if the dock or other boats are smashed.

On open water, boating traffic can be toward or from any point on the compass. A sharp lookout should always be kept for other boats, especially at high speeds when you're going to or from distant fishing grounds. When visibility is limited, extra care and slower speeds are required for safety. All persons on board should assist the skipper with lookout duty.

If you collide or run aground, the first rule is to THINK! Do whatever is necessary to stay upright. Before pulling free, check for structural damage and leaks. If towing is ever necessary, keep in mind that it can also be dangerous. Very long lines make it possible for a third boat to cut between one boat towing another—and you can guess what can happen!

Hooks and knives can cause injury on board, and for this reason, a few first aid supplies are worth taking as part of your regular gear. A good, sharp pair of wire cutters can be a relief if someone is deeply hooked by a plug. The hook can be left in place until a doctor is available and the shank cut loose from the plug to relieve the weight on the wound.

Water skiing is very popular in the Sunshine State. Here too, safety and common sense should prevail. Pull ropes should be in top shape and the skier should always wear a PFD. A constant lookout should be maintained from the boat to be sure the skier is safe. Special care should be given to keep lines from tangling with propellers and to steer clear of the skier. Skiing should never be done in waters where there is much floating debris or underwater snags.

Conflicts sometimes arise between boats carrying anglers, who want to fish on still waters, and ski boats. If you're in the high speed boat, remember your wake can flip small boats over, and that multiple passes alongside fishing boats can be aggravating. If there is room on the lake, ski where you won't disturb others' fishing.

A final word about safety concerns unsafe boaters you may find sharing the water. Never hesitate to give them the right of way, even if the right of way is yours. Don't be like Ol' Captain O'Day, of whom it is said:

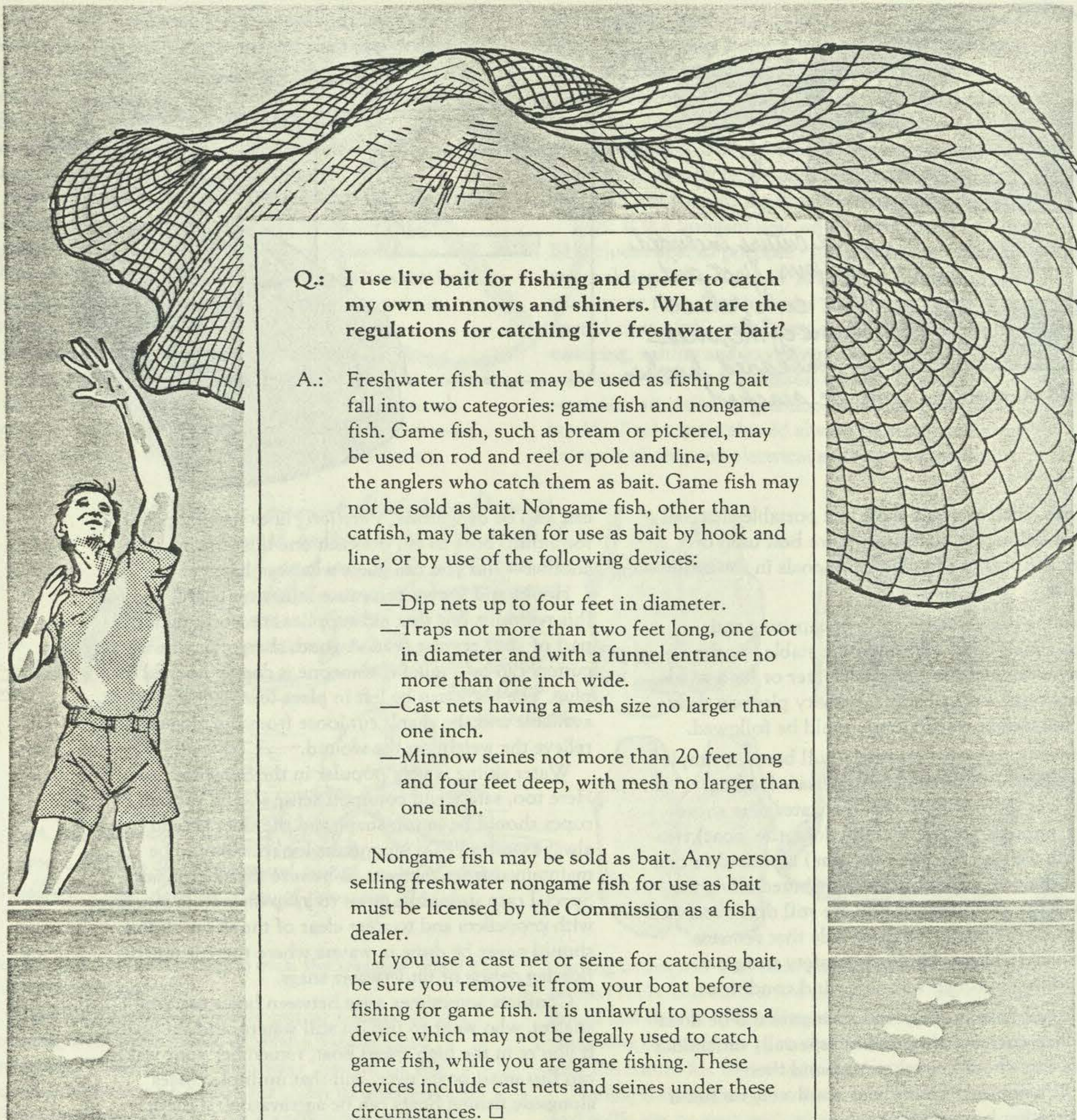
Breathe yea a prayer for Captain O'Day,
Who died maintaining his right of way.

He was right—dead right as he motored along,
But he's just as dead as if he'd been wrong.

—Poet Unknown

It's The Law

By Dave Swindell



Q.: I use live bait for fishing and prefer to catch my own minnows and shiners. What are the regulations for catching live freshwater bait?

A.: Freshwater fish that may be used as fishing bait fall into two categories: game fish and nongame fish. Game fish, such as bream or pickerel, may be used on rod and reel or pole and line, by the anglers who catch them as bait. Game fish may not be sold as bait. Nongame fish, other than catfish, may be taken for use as bait by hook and line, or by use of the following devices:

—Dip nets up to four feet in diameter.

—Traps not more than two feet long, one foot in diameter and with a funnel entrance no more than one inch wide.

—Cast nets having a mesh size no larger than one inch.

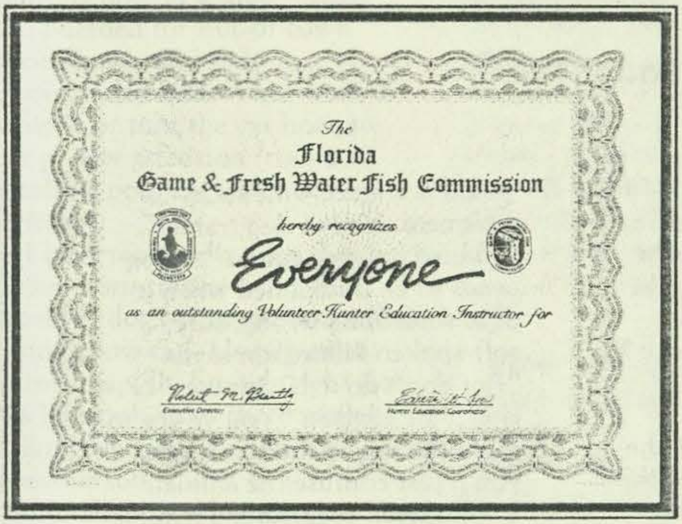
—Minnow seines not more than 20 feet long and four feet deep, with mesh no larger than one inch.

Nongame fish may be sold as bait. Any person selling freshwater nongame fish for use as bait must be licensed by the Commission as a fish dealer.

If you use a cast net or seine for catching bait, be sure you remove it from your boat before fishing for game fish. It is unlawful to possess a device which may not be legally used to catch game fish, while you are game fishing. These devices include cast nets and seines under these circumstances. ☐

Hunter Education News

By Captain Ed Tyer
Coordinator for Hunter Education



The
Florida
Game & Fresh Water Fish Commission
hereby recognizes
Everyone
as an outstanding Volunteer Hunter Education Instructor for

Robert M. Brantly
Executive Director

Hunter Education Coordinator

Quite often, we are so involved in the day-to-day operation of our programs and attempts to reach our goals, we neglect the basics. In hunter education, this would be our volunteer instructors, the backbone of our program.

In an effort to avoid this, we have established an awards program for outstanding contributions to the hunter education effort. One instructor from each of the five regions is honored with a certificate and a wildlife print signed by artist Wallace Hughes. The presentations are made at our annual statewide instructor training session. This year's session was held March 3-4 at Camp Ocala.

Giving awards seems simple enough, but it's actually a very hard task trying to honor a single individual from each region out of a group of many outstanding volunteers. First, we must consider the number of people we are working with and the great job they have accomplished. There are more than 2,000 certified volunteer hunter education instructors in Florida. From this group, we had more than 700 who were active last year. To maintain active status, an instructor must teach at least two courses per year. The results of these instructors' efforts were 450 classes during fiscal year 1982-83—an average of nine classes each week. Each class had an average of 27 students for a total of 12,150 students trained. These students were introduced to the basics of safe gun handling, wildlife conservation and identification, and the ethical and responsible conduct required of a sportsman.

Since initiation of the Commission's hunter and firearm safety training program, over 100,000 Floridians have been trained, most of them by volunteer instructors. Last year, hunter education instructors donated over 18,558 hours to the Commission with a dollar value of $162,758. By the time a chief instructor procures a classroom, obtains teaching materials, organizes assistant instructors and oversees and teaches a course, he or she will have invested approximately 40 hours. We have instructors who have taught as many as four classes in one month.

With such active participation by these dedicated volunteers, it's understandable why we find it hard to choose five outstanding instructors from the whole group.

With much pride and appreciation, the following outstanding instructors were chosen for 1983:

Phil Faith — South Region
Christopher Flanagan — Northeast Region
Myra Jeffres — Northwest Region
Chuck Fisher — Everglades Region
Frankie Bright — Central Region

Laura Smith from the Everglades Region was named outstanding area coordinator for the state. Area coordinators are volunteers who assist the regional hunter education officer by coordinating the activities of supplying equipment and supplies to instructors in one or more counties.

Three wildlife law enforcement officers were also honored for their work in the program. Sergeant Tom Goodhue, South Region; Wildlife Officer Charles Bradshaw, Central Region; and Wildlife Officer Charles White, Everglades Region.

During the past year, we had the misfortune of losing a very dedicated instructor, John Morrison, who passed away. At the time of his death, he had a hunter education course in process and was planning to teach a class on the night following his death. In keeping with his dedication, his son went to the class to see that everything went as John had planned.

John's dedication was such that his entire family was involved. His wife Marie, sons John Jr., Jeb and Dan, and his daughter Mollie are all active certified instructors. In an effort to acknowledge his dedication, the John W. Morrison Memorial Award was established this year. This award is intended to be presented to instructors who exhibit the type of enthusiasm portrayed by John.

The first recipients of the John W. Morrison Award are Bill and Carol Glenn from Tampa. The Glenns and their group's dedication can be summed up by saying they have taught 55 classes and trained 2,000 students.

With the support of such fine people as Florida's volunteer hunter education instructors, our program will continue to offer citizens of Florida an opportunity to be introduced to the needs of our native wildlife and the responsibilities of the hunting public. To these volunteers, we offer our sincere thanks for a job well done. □

A Dog's Best Friend

A conversation with trainer Ed Pilkington

By George X. Sand

I knew we were in for more trouble. The pointer had already run up several coveys. Now the strong black-and-white dog was ranging far ahead of our hunting vehicle, plunging powerfully through the tall grass and scattered myrtle thickets.

Seated beside me, the pointer's owner yelled in frustration, "Come back here!" He reached for a whistle hanging about his neck and blew it shrilly several times. "You come back here!" he hollered at the dog.

"I get no attention," he muttered as he whistled again, just as we saw the birds fly up. They were still several hundred yards away—a big covey, too. The anguished cry which this sight tore from the lips of the man beside me was one of the most pitiful sounds in bird huntingdom.

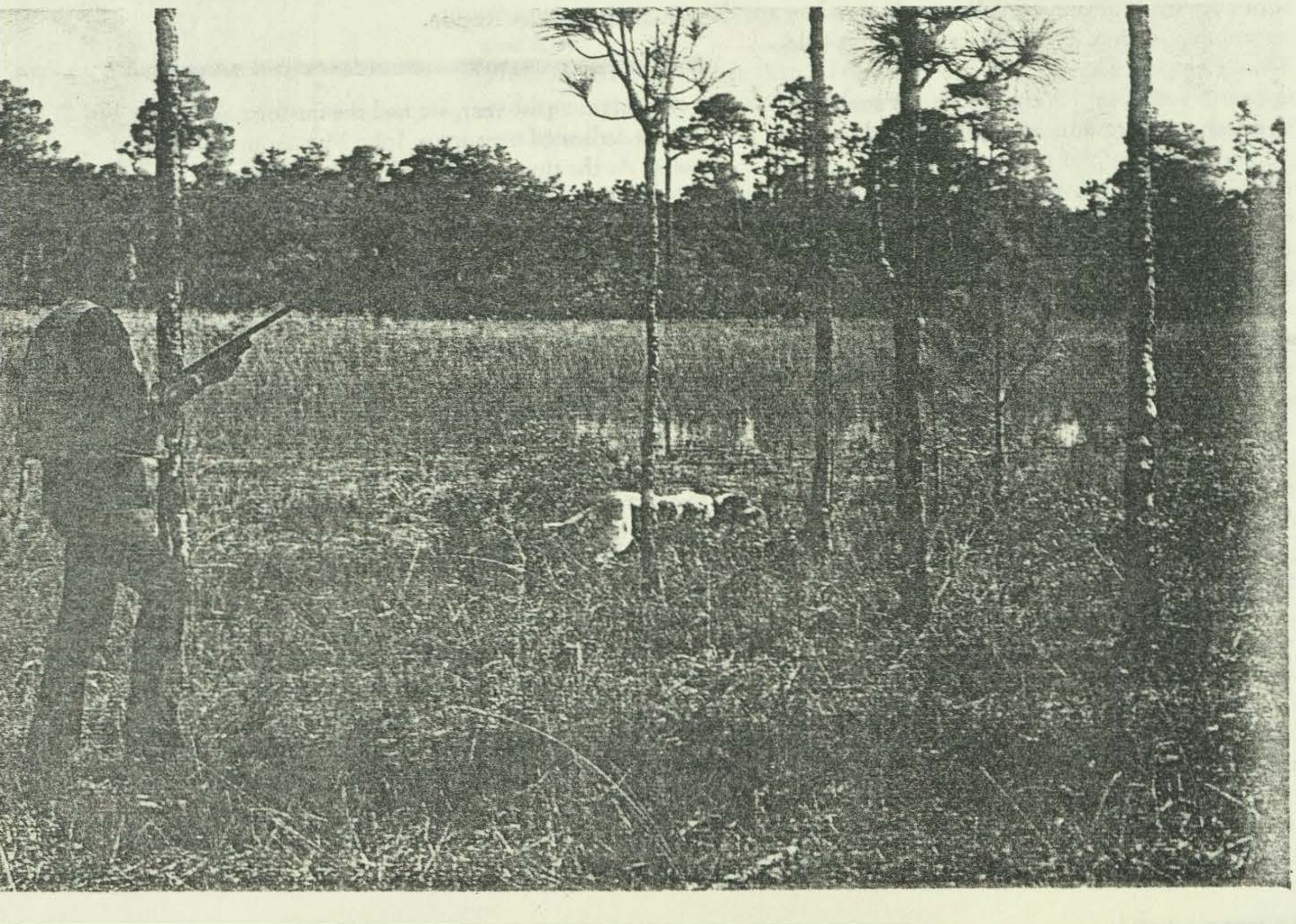
Editor's Note: ***In our March-April issue, we mistakenly credited the story "Barefoot 'n' Braggin'" to Max Hunn. The story was written, and the photographs taken, by George X. Sand. We regret the error.***

When he finally managed to coax the excited dog back, he whipped him with his hunting cap and yelled, "Bad dog!" The pointer cringed against the earth. "When I tell you to come, *you come*!" he yelled again.

Another hunting companion, Ed Pilkington of Fort Myers, would not agree with such treatment. He is a dog trainer and bird hunting guide. "A dog needs to be disciplined when it does something wrong, sure," soft-spoken Pilkington says. "But don't do it 10 minutes later," he advises. "You've got to catch the dog in the act. If not, you'll just confuse the animal."

Pilkington suggests the trouble with this particular bird dog was that it did not know how to please its owner. "Put yourself in that pointer's place," he says. "Would you want to come back to a yelling master, knowing from past experience you were going to be whipped?"

Pilkington knows you can get a lot more from an animal with



George X. Sand-Photo

love. "If you love your dog, it wants to please you," he says.

He kennels as many as 18 hunting dogs at a time—some are boarded for out-of-town sportsmen—and only occasionally finds it necessary to whistle or toot the car horn to get proper attention from a working pointer, setter or Brittany.

I have repeatedly seen this Texas-born trainer bring in a working dog for inspection with a single low call. Usually, the animal happily bounds right into his lap, then rides there while Pilkington inspects him for possible foot burrs, eye discomforts or whatever.

Pilkington has been successfully training, kenneling and selling hunting dogs throughout the United States for 10 years. In an interview with him, he offered these answers to questions that most often concern hunters about their dogs:

Should I train my own dog?

Yes, if you have the time and the patience to train a puppy. A dedicated hunter, one who hunts almost every weekend, would enjoy hunting over a dog he or she had personally trained.

Let's assume I've bought a pup. How should I go about training it?

I've been told my method differs from that of most trainers, but my first concern is that the pup should develop the right *personality*. The dog should be allowed to mix with people, to get used to them. Let it play with kids in the back yard. Pen it up only at night.

You mean it should gain confidence from that?

Right. You don't want a shy dog. That's why training problems develop. I have sportsmen bringing me timid dogs, and I have to try to deprogram them because their personalities have suffered from early neglect.

Are you talking about gun shyness?

No, that's something else, something you usually can't do much about. I'm referring to what I call "puppy shyness." A dog that hasn't been allowed to grow up around humans in a loving relationship. Often, a shy dog will simply become frightened and follow the hunting vehicle. On the other hand, a gun-shy dog will just run off.

How long should I wait before starting to train my new pup?

Don't wait. Begin as soon as the puppy is strong enough to go afield. Let it run, without a halter. If the pup has come from good parents, and if its personality hasn't gotten messed up since its birth, you can expect it to become a natural hunter. It may only point grasshoppers and butterflies at first, but even these are encouraging signs.

How often should I take the dog afield like this?

Try to go two days every week, but don't tire the dog.

Is that the only training I need to give it?

No. Supplement the field work with back yard training. Tie a quail or dove wing to a cane pole, using a short string, and place that before the pup. Let him learn to point such placements. Use such objects to practice retrieving, too. Do this every night, if you can, for only 15 minutes.

Only 15 minutes?

A puppy is like a child. It has a short attention span.

How long must this go on before I can hunt over the pup?

That depends upon the dog's parents, and the kind of training job you've done. I've had pups pointing solidly on live birds at three and four months, and I've hunted them successfully as young as five months.

How can I determine whether I have time to train a pup?

That's hard to answer. Generally, the person who has only four or maybe six weekends available during hunting season would be better off buying a dog that has already been trained.

And what should that cost?

I've seen well-trained pointers fetch from $600 to twice that amount. And for a top field trial dog, you can expect to spend several thousand dollars.

What should I expect to pay for an untrained dog?

Six-week-old pointers and Brittanys usually sell for $150 to $200.

What is the best age to buy a trained dog?

To ensure a good return on your investment, the animal should not be more than two or three years old. In Florida, we have a lot of parasites, and the average age of a hunting dog is usually only eight or nine years, although I've seen some fine animals still hunting at 13 or 14, but at reduced efficiency.

If I buy a puppy, what should I look for?

Inspect the litter for the most outgoing dog, the one with the most personality. I look for aggressiveness, too. And if the pup is curious about things, if you can catch him pointing a bug, or something, that's always a good sign.

What breed of dog do you recommend for Florida hunters?

I recommend pointers for quail. If you want a versatile dog that will point and retrieve, there is the Brittany and the German shorthair, which can be used as land and water retrievers. The Labrador is a good retriever, particularly in water. The Lab and Brittany both can be trained to retrieve doves, and so can a pointer.

Various strains of hounds are used to run deer, and a mixture of hound and pit bull has proven effective for hogs, since this ▷

provides both a nose for trailing and courage to fight a bayed-up hog. Some Florida sportsmen refuse to use their retrievers for ducks because of the danger from alligator attacks.

What other dangers threaten dogs used for Florida hunting?

Snakebite is probably the worst danger.

How is that best handled?

Get the dog to a veterinarian without delay. Meanwhile, try to prevent it from going into shock by keeping it warm and talking to it. Shock can kill a dog before the venom.

What are the indications of shock?

The dog will slow down and want to lie down. The heartbeat slows too.

Pilkington advises against hunting in areas most used by snakes. He believes local hunters usually know these danger spots. He told of the recent experience of Bruce Van Viliet of Bonita Springs, a fellow member of the Southwest Florida Bird Hunters Association:

One day while Van Viliet was hunting alone, he noticed one of his dogs acting strangely. The pointer was moving in a tight circle, obviously excited by something in the grass.

Van Viliet recognized this sign. He called the dog as he jumped from his hunting buggy, and loaded his shotgun as he approached.

What the hunter didn't realize was that the big snake, a rattler, was coming straight toward *him*. And fast!

"I didn't have time to aim my gun," Van Viliet recalled. "I just shot from the hip. And the snake was so close some of it landed against my chest as I blew it apart!"

What size dog pen do you recommend?

Since most bird dogs just lie down in a pen, or perhaps walk about a bit, they depend on you to let them out for daily exercise. An enclosure 12 feet long and four feet wide is usually sufficient. It can be built by using either 1 x 2 or 2 x 4 galvanized wire, nailed about a frame of 2 x 4 wood.

George X. Sand-Photo

You can also make a dog pen of chain-link fence, using metal posts. In either case, it is a good idea to pour concrete for the floor, since this permits easier cleaning when hosed down. The kennel or shelter should face either east or west, since Florida's coldest winds generally come from the north, and rain usually comes from the south.

In conclusion, Pilkington recommends a dog owner always "listen" to what his animal may be trying to tell him. He recalls with a smile occasions when he has watched hunters good-naturedly complain when their dogs, seemingly confused, pointed a box turtle or meadowlark, only to have a covey of quail flush from the same area.

George X. Sand-Photo

Which brings to mind the time when my wife Lou and I were hunting quail with Bo Randall, the well-known Orlando maker of handcrafted sporting knives. Randall kennels half a dozen setters and pointers and he loves each one, regardless of how old and tired the animal may be from years of service.

On this particular day it was Old Bo, an aging black-and-white setter named after Randall himself, who was given his turn to slowly move ahead of our hunting buggy. Randall had cautioned us not to take the setter too seriously, since his once-great nose was nearly gone.

Suddenly, Old Bo locked up. "Birds," my wife breathed softly. "The old boy has found us some birds!"

No sooner had she said it, however, than the dog relaxed and started slowly forward once more. A few yards farther and this happened again. But once again, Old Bo came off point and moved ahead.

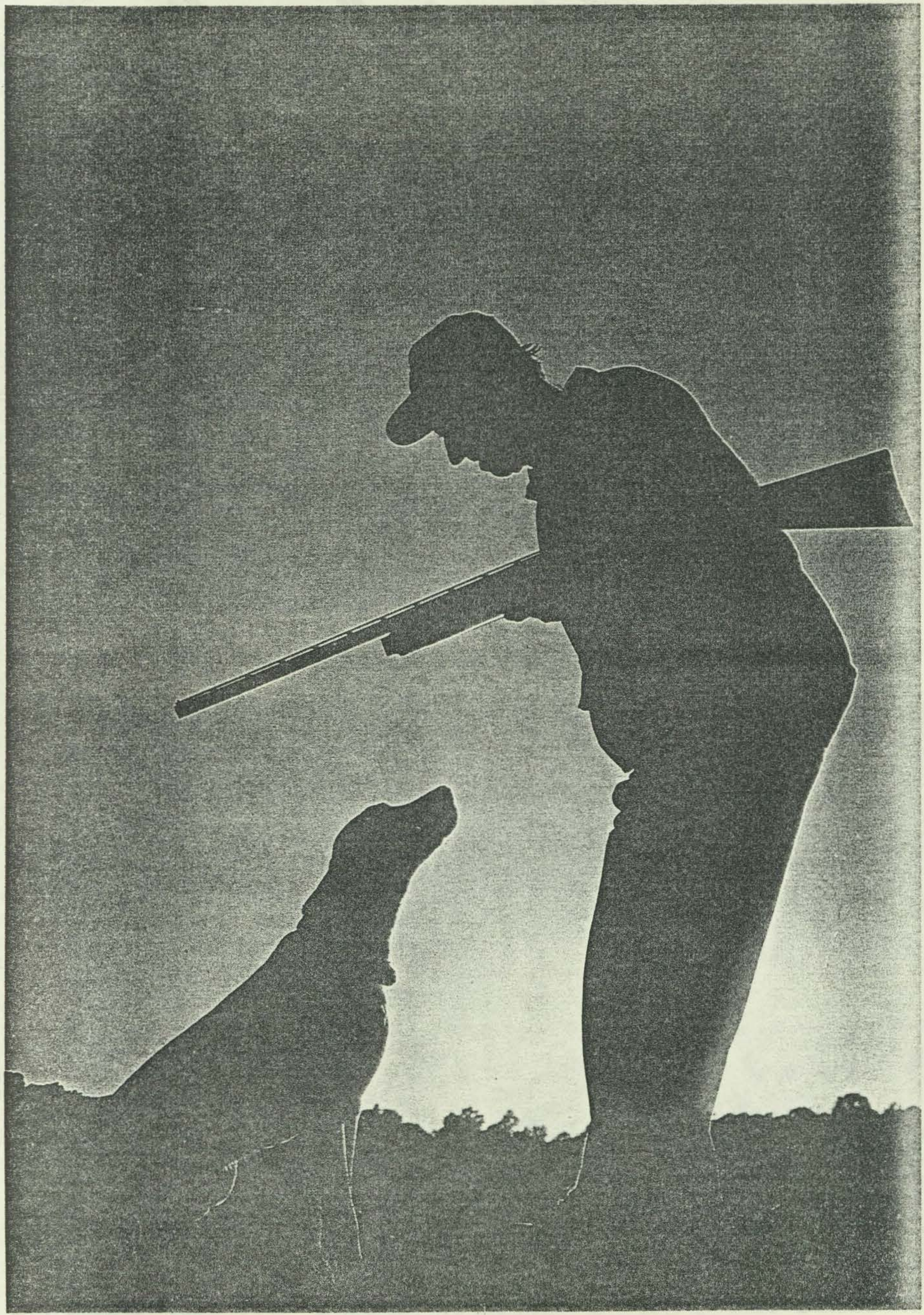
"The birds are moving," I suggested to Randall.

"No, don't believe it," he chuckled. "Old Bo is just having fun."

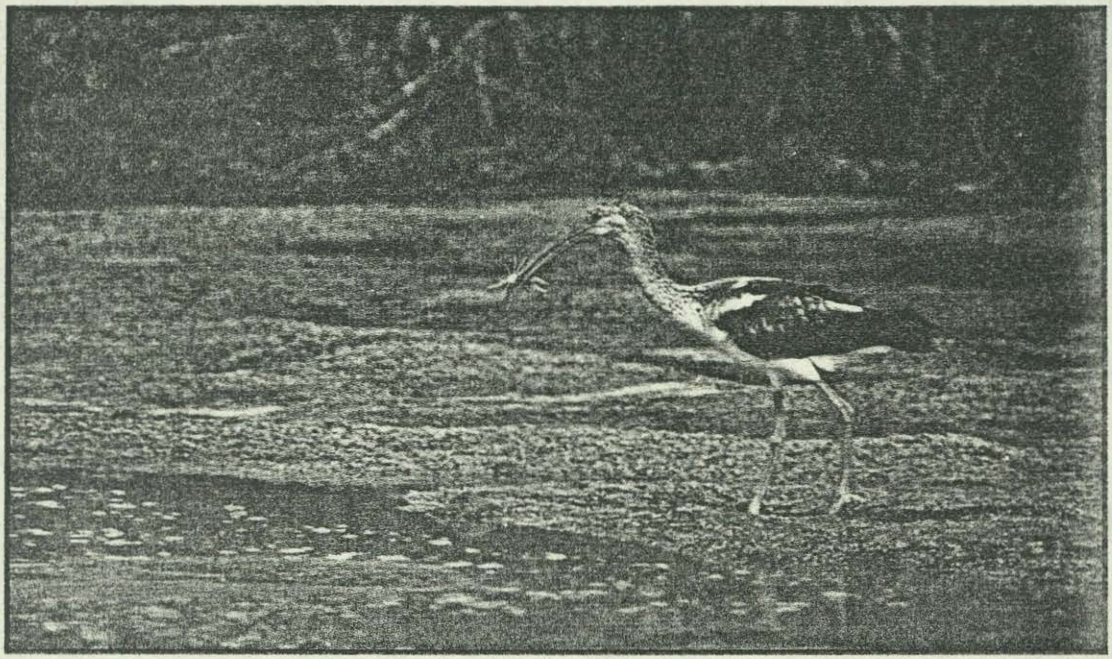
After this had happened no less than half a dozen times, and we had covered perhaps a hundred yards, I was ready to believe him.

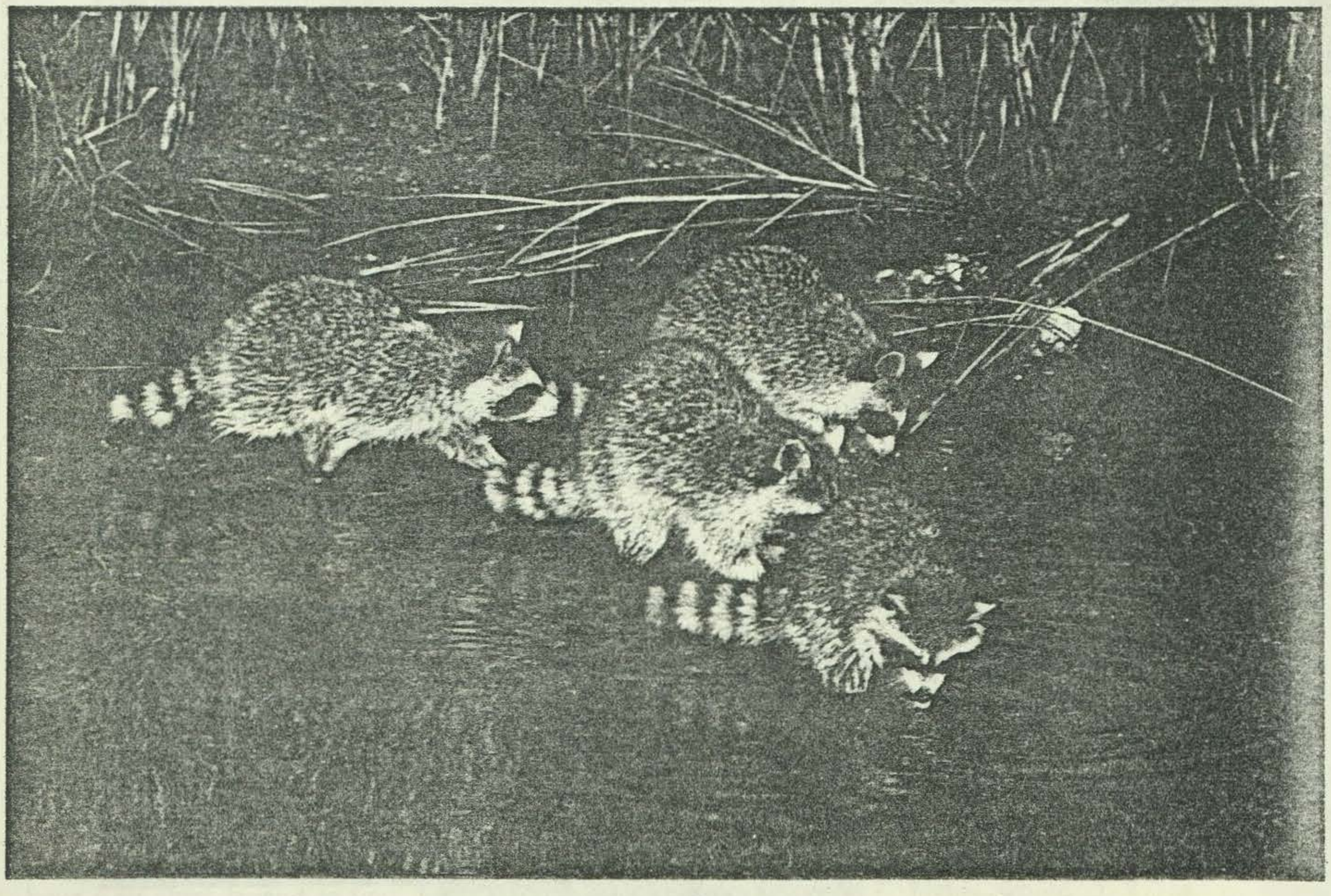
Then Old Bo locked up once more, and—you guessed it—this time a covey of quail burst upward with a roar. By this time, we were so charged up we didn't drop a single bird.

I'm sure of one thing, though. Old Bo had been serious from the start. We just hadn't been listening like we should. □



George X. Sand-Photo





Francis

"My first experience photographing wildlife was with a pocket camera in Yellowstone National Park," says Michael Francis. "And," he adds, "my first subject was a grizzly bear.

"When I showed the bear pictures to a good friend, he thought it was a pocket gopher because it looked so small in the photographs. It was then I decided I needed a better camera."

From this beginning, Francis continued to study and photograph wild animals. Since he was working at Yellowstone, he was in a good place to get results.

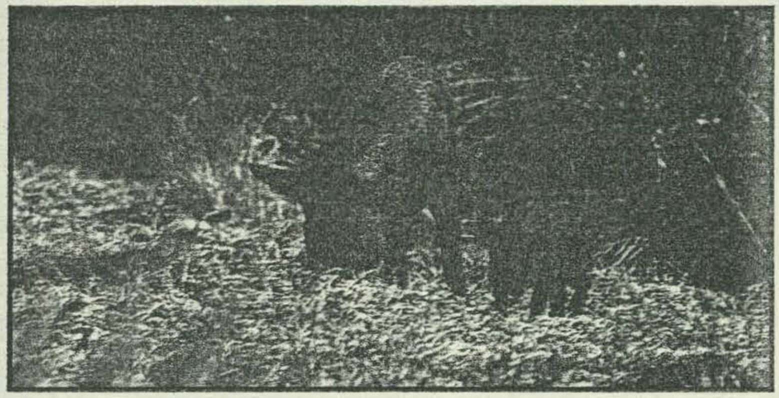
Francis also studied film and television production at Montana State University in his home state. At the university, where he earned a bachelor of science in entomology, he developed his abilities to observe life from a biological perspective.

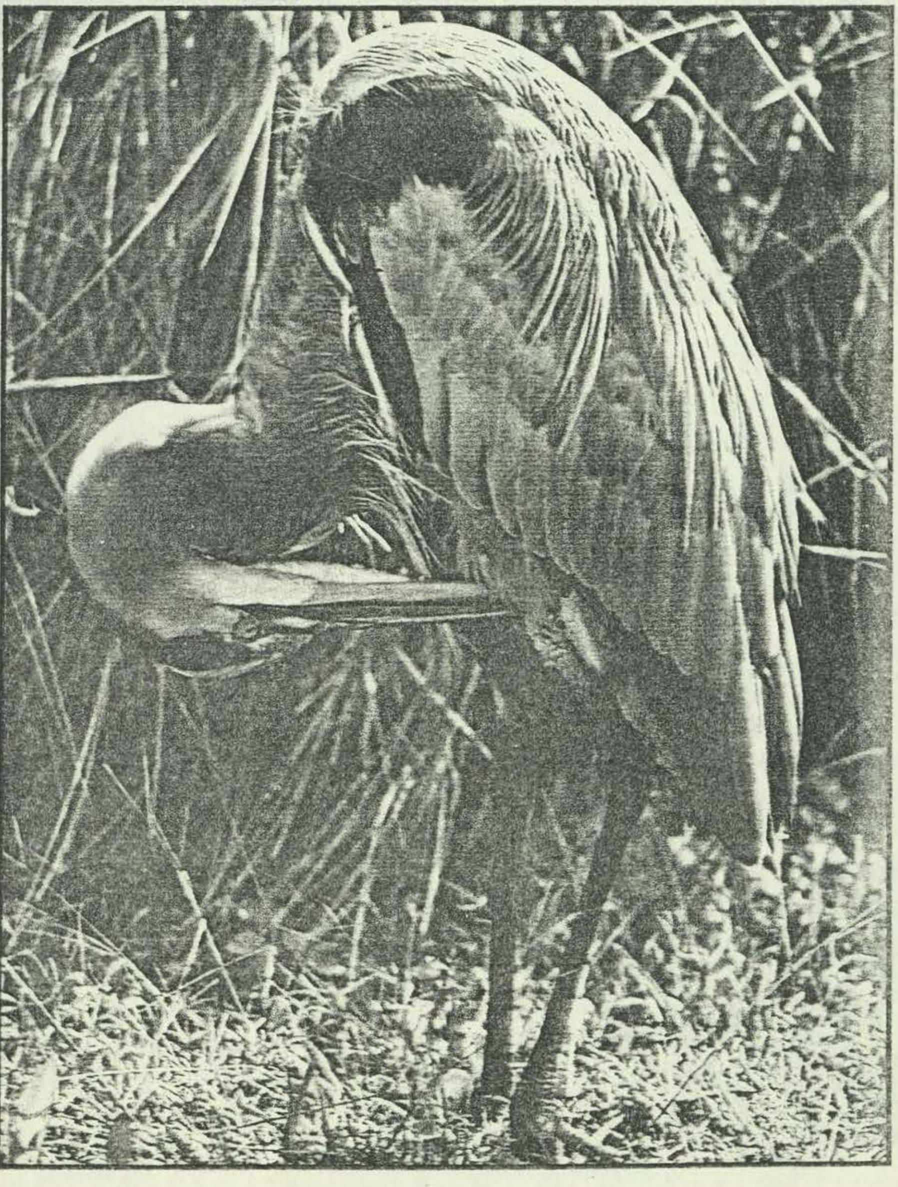
"I'd be outdoors observing animals, even if I didn't have a camera, because of my biological training," he says.

After he had developed the knack for bringing home the images he wanted, he started entering photography contests and, soon after, was encouraged by friends to try his hand at selling to magazines.

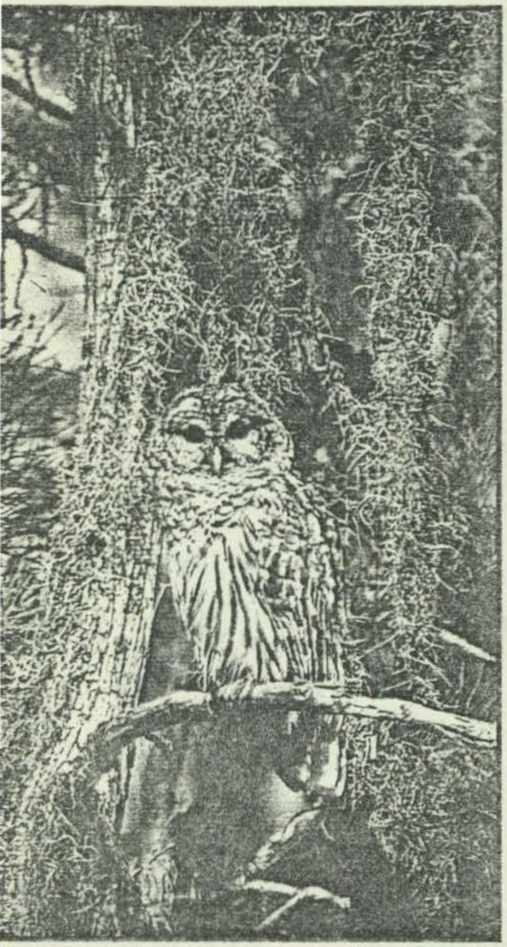
"Initially," he explains, "I sent in a large selection of the best color slides I had. They were all rejected. Later I discussed this with a photographer who owned a light table and a magnifier, and it was there I saw why my photographs had been rejected. They weren't sharp!"

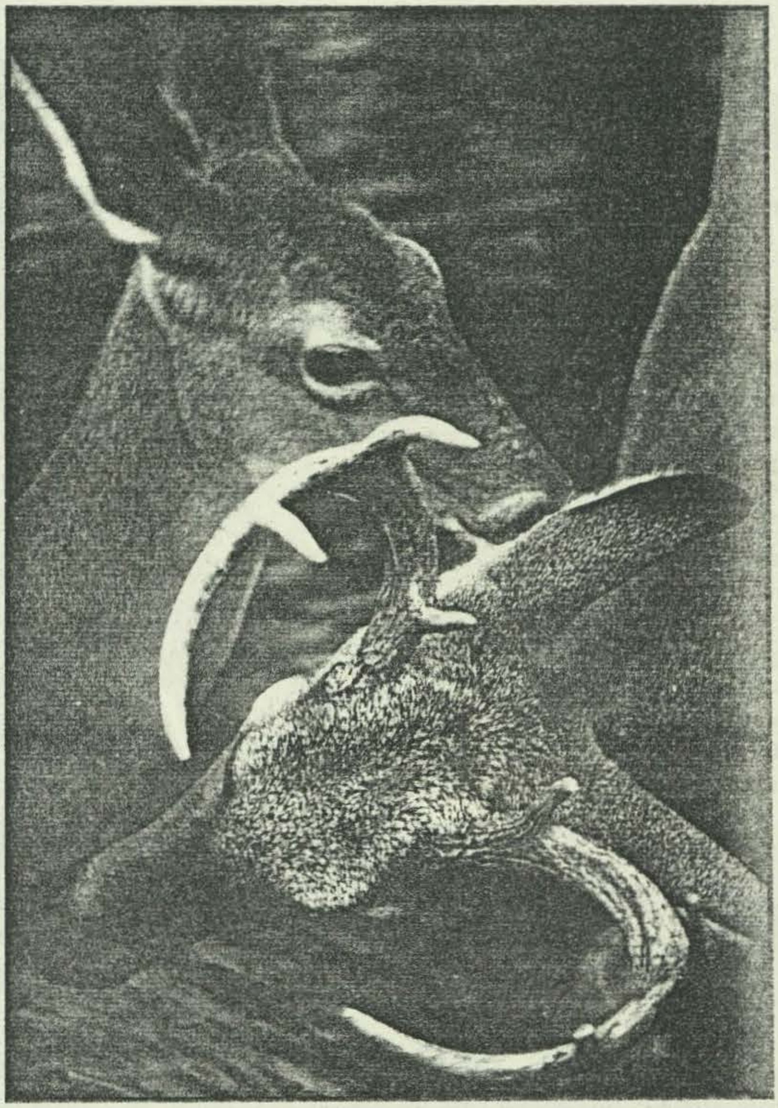
As a result, he became more selective about what he sent and then he began to make sales. So far, in his three or so years of trying, he has sold wildlife photographs to *National Parks* magazine, *Montana Outdoors*, *Montana Magazine*, *Field* ▷

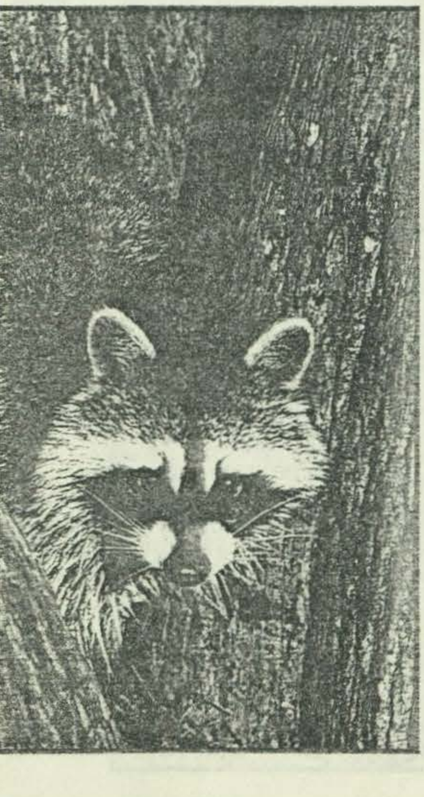




Michael Francis







and Stream, *Bow Hunter*, *North American Hunter* and *Western Outdoors*.

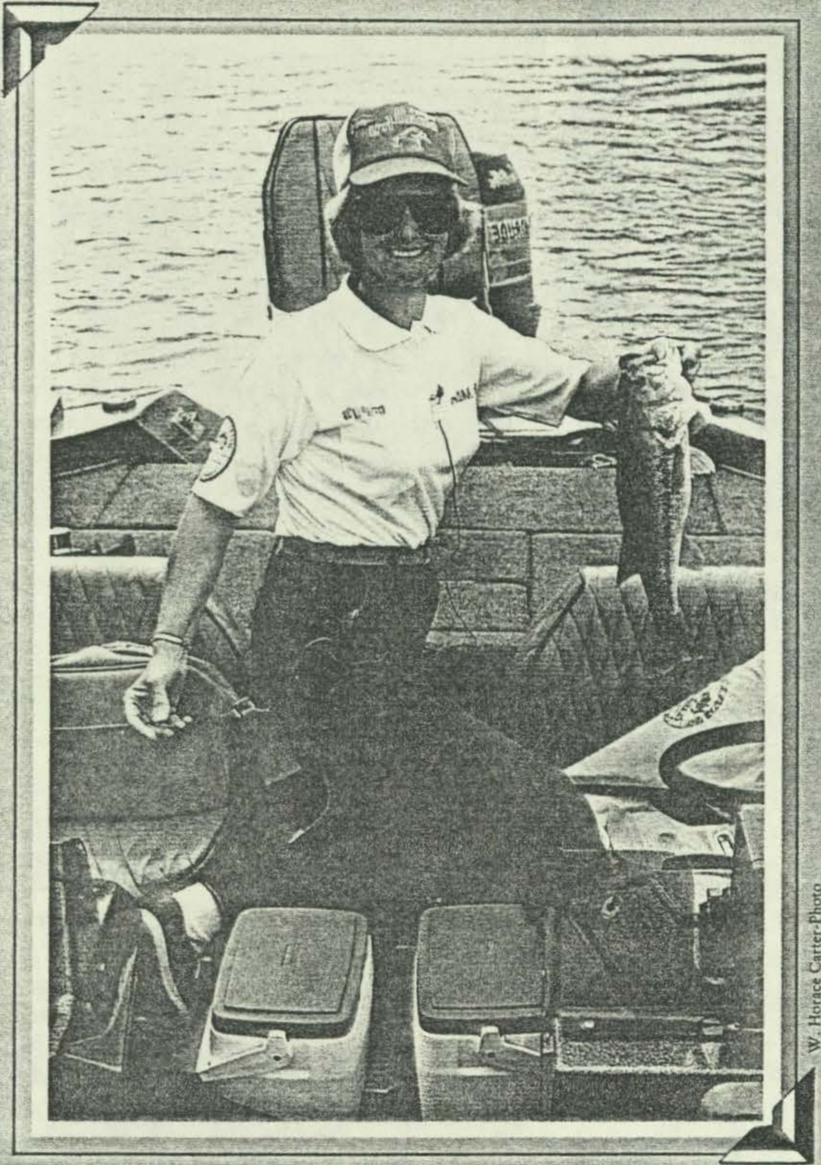
These photographs, along with the spider web on our back cover this issue, are Francis' first publication in FLORIDA WILDLIFE. They were all taken since October, while he and his wife were temporarily living in Tallahassee.

"Florida is different from Montana," he says of the wildlife here. "There, we don't have large wading birds nor wild hogs, for example. And I really enjoy the birds."

He said the wild hogs have been his greatest challenge. "I've spent days stalking them, dressed in camouflage. It's hard to get close enough to get pictures. And, they can be dangerous!"

He compares stalking the hogs to stalking black and grizzly bears back home. "A few times the hogs have come so close to where I was hidden that I stood up and scared them away. They were just too close for comfort!" □

—John Waters Jr.



W. Horace Carter-Photo

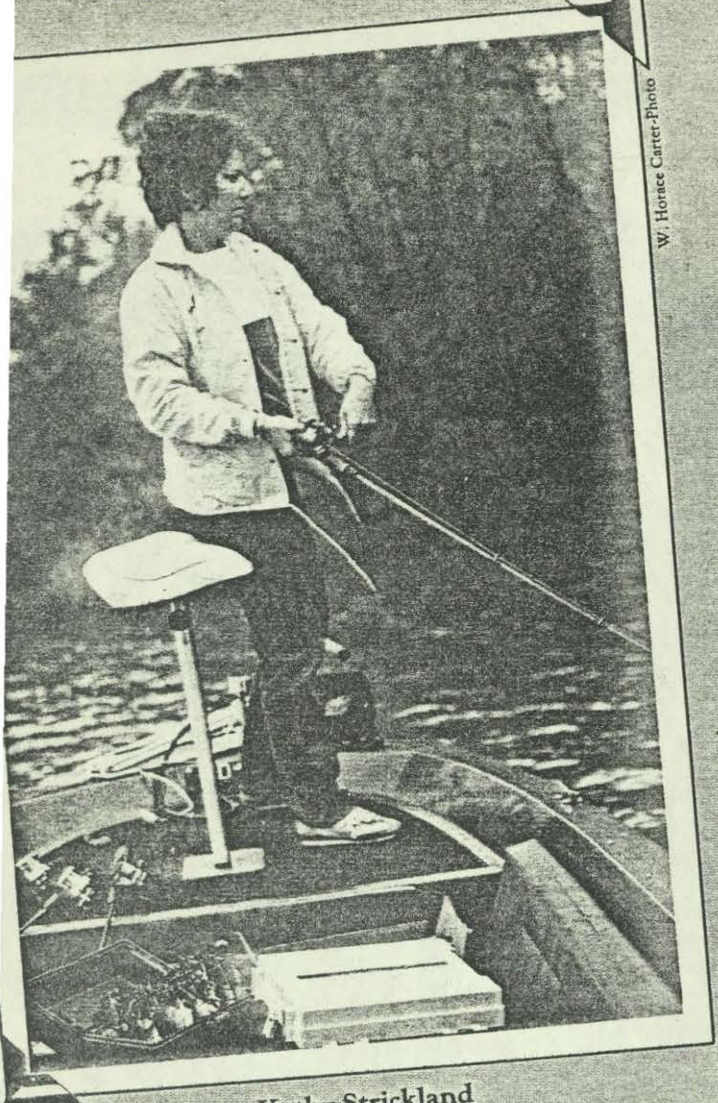
Fran Miller

Florida Anglers Fish Classic VII

By W. Horace Carter

Every fall, the 10,000-member Bass'n Gal fishing organization of Arlington, Texas holds its Lady Angler Classic. The tournament, "The Women's World Championship of Bass Fishing," had 33 contenders from around the United States compete last November for cash and merchandise totaling about $30,000.

Florida has not had a contender win this top prize during the seven-year history of these events, but each tournament has seen more than its share of Sunshine State contestants. The November Classic VII, at Grand Lake of the Cherokees, had five Floridians competing in the contest. They tied Louisiana for third place in the number of contenders from one state. Texas and ▷



W. Horace Carter-Photo

Kathy Strickland

Arkansas were the only states with more contestants.

Three of the top 10 finishers were from Florida, with Ann Ham of Orange Park coming in sixth. She caught 11 pounds, 10 ounces of bass during the two days of exciting fishing.

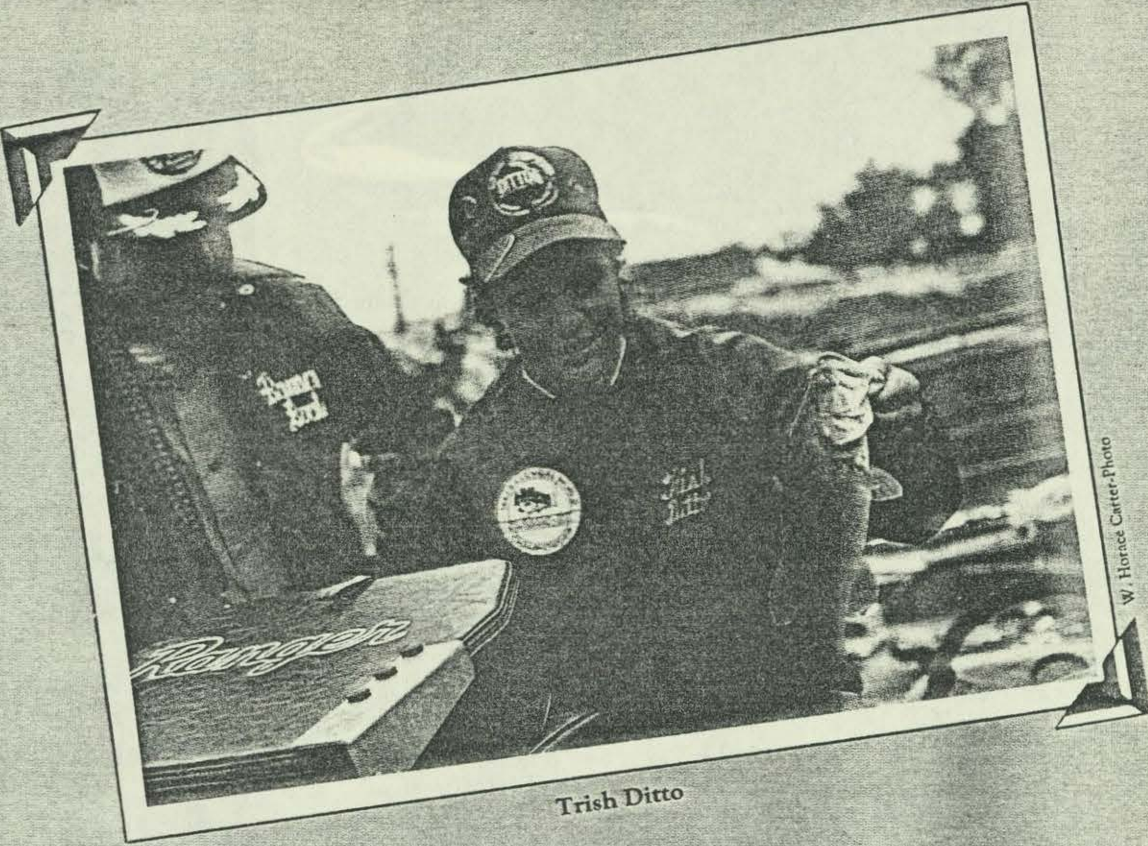
Ham, co-owner of a fish camp and restaurant at Orange Park, didn't start bass fishing until she was 48. Now she fishes two or three days a week. She has participated in 19 Bass'n Gal competitive events since 1980, and she earned a second place finish in the 1983 Oklahoma Invitational on Broken Arrow Reservoir. That netted her $1,170.

Ham believes Orange Lake and Lochloosa Lake in Alachua County are "the best bass holes in Florida," although she caught her finest lunker, a nine-pounder, on a plastic worm in Lake Okeechobee. Her favorite lure is a deep-diving Rat-L-Trap.

Fran Miller finished eighth at Classic VII, with 10 pounds, 15 ounces of bass in two days. She won $560 in 1983 Bass'n Gal events. Miller began fishing for bass when she was 39 and now fishes the lakes around Winter Haven at least two days a week. For 16 years, she has worked at a lure manufacturing company in her home town, and she says she loves the work because it is closely associated with her bass fishing.

W. Horace Carter-Photo

Ann Ham



W. Horace Carter-Photo

Trish Ditto

Miller regularly fishes the lakes of the Winter Haven chain, including Lulu and Shipp. She loves competitive bass fishing, but also enjoys angling with her seven- and eight-year-old grandsons. She likes to tell about the day she was fishing with the seven-year-old, who won a junior tournament at that age with a five and one-half pound bass. When he saw his monofilament line playing out, he yelled, "Grandma! Grandma! My worm's trying to get away!" He hadn't realized it was being dragged away by the winning bass.

Patricia Ditto of Satsuma finished 10th at Classic VII with nine pounds, 12 ounces of catch. She comes from an avid bass fishing family and began fishing for largemouths when she was only nine. Ditto fishes about 75 days a year. She caught her largest bass, an eight-pound, eight-ounce beauty, on a shiner in Lake Hewett. She likes blue-grape Ditto Baby Eels but has had some success with Rat-L-Traps, spinner baits and buzz baits. Known as "Trish" by her associates and fishing buddies, she says the St. Johns River has the "best bass fishing in Florida."

Wanda Tester, from Satellite Beach, tied with Kathy Strickland of Jacksonville for 29th place at the Grove, Oklahoma, Bass'n Gal tournament. She started fishing when she was 35. 1983 was her first year at fishing every Bass'n Gal tournament. Tester's highest finish in those cast-for-cash events was 18th at the 1983 Georgia Invitational on Lake Seminole. There, she won $185, and earned her place in the Classic for a second time.

Tester picks the Kissimmee chain of lakes as her choice for the best bass fishing in Florida, and she caught her biggest trophy there on a plastic worm. It weighed nine pounds, eight ounces. Her favorite lure depends upon water and weather conditions.

Kathy Strickland, a Jacksonville food broker when not after bass, began bass fishing about nine years ago. Previously, she had fished for bream and shellcrackers while enrolled as a nursing student at the University of Florida. She says she fished then "to just relax and get rid of the pressures of school."

Known by her friends as "The Devilhorse Kid," Strickland chooses the Devilhorse topwater lure as her favorite. She has an eight-pound, 14-ounce largemouth to her credit, caught on a Devilhorse in the St. Johns River. Still a novice in competitive bass fishing, she was in a Classic for the first time at Grand Lake of the Cherokees.

While the 1983 Florida contestants in the Bass'n Gal Classic did not bring home much "loot," they look to the future with hope and anticipation. They know another Floridian, Mary Ann Martin of Clewiston, won Classic II on the St. Johns River in 1978. At the time, she was a resident of Broken Arrow, Oklahoma. In 1980, she won the Kentucky Invitational on Kentucky-Barkley Lake. In 1983, Ginger Albritton of Quincy, fishing at Lake Talquin, boated 15 pounds and 11 ounces of largemouths for a first place win in the Florida Invitational. She is the first Floridian to win such a tournament.

The five who fished in Classic VII, and other Florida Bass'n Gals, dream of a more successful tournament as they continue fishing. ☐

LAKE TALQUIN DRAWDOWN

By Arienne Wallace

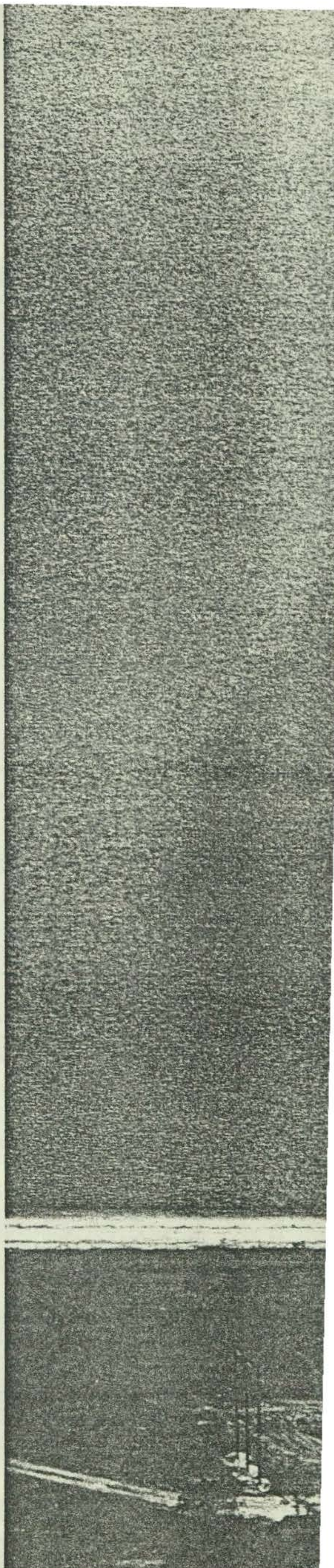
Some of Florida's lakes are in trouble, and Game and Fresh Water Fish Commission fisheries biologists are administering a kind of "CPR" in an effort to save them. Their method is as old as the earth itself, which provides lakes with alternating floods and droughts.

Man's increasing encroachment on the land has resulted in water controls which have all but eliminated these natural cycles. In man-made lakes like Lake Talquin, west of Tallahassee, nature loses its chance to fluctuate water levels.

This large impoundment on the Ochlockonee River was created in 1928 as a reservoir for water to be used to generate hydroelectric power. The closest it has been to natural drought and flood-like conditions was twice when repairs to the dam were needed, and once when the dam ruptured in 1957. Each time, the reservoir was drained substantially.

An interesting thing happens to a lake after its water level is lowered. With the water level down, layers of organic mud, which have accumulated on the lake's bottom over a period of years, are exposed to sunlight and air. This allows the mud to dry and form a firm surface. A firm lake bottom is much more conducive to the production of bottom-dwelling organisms, which form an important link in the food chain for game fish. Within a few years, sport fishing improves tremendously.

Based on natural drawdown cycles in Florida lakes, Commission fisheries biologists began experimenting with controlled drawdowns to restore Lake Tohopekaliga in central Florida. In the late 1960s, Lake Toho, as it is known locally, had begun to show signs of rapid deterioration from ▷



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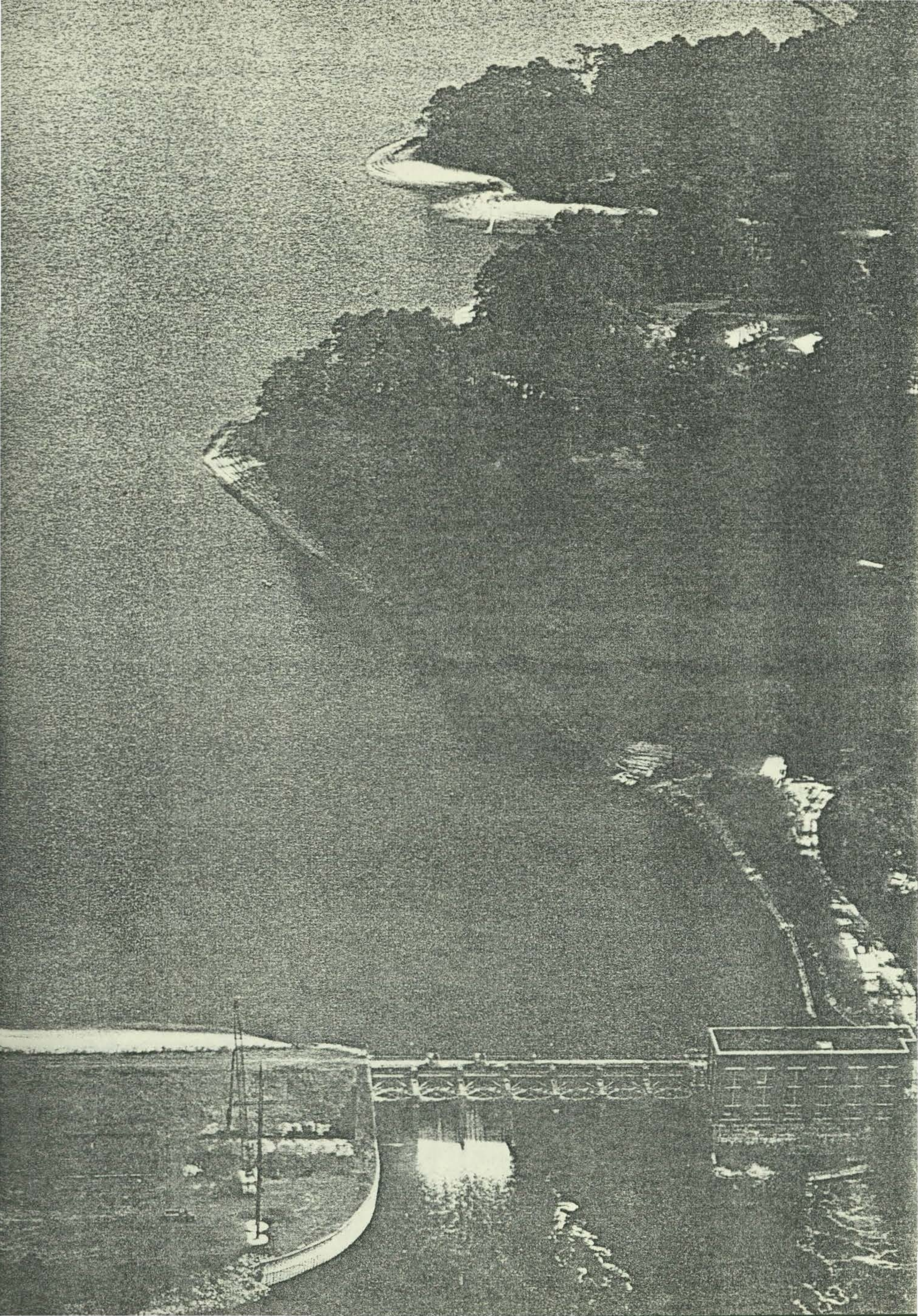


This recent drawdown gave the lake bottom the appearance of a no man's land.

pollution. Since a series of spillways and locks had been built by the Central and Southern Florida Flood Control District earlier that decade, to control the lake's natural flooding and drought cycles, Lake Toho had lost the healthy benefits of having its bottom periodically oxidized and its aquatic vegetation stimulated. Before water control was imposed, Lake Toho's water level had varied naturally as much as 10 and one-half feet.

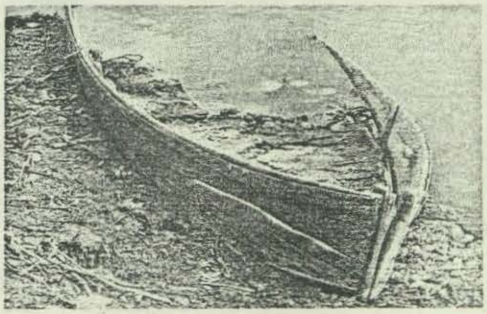
In 1971, a mechanical drawdown of Lake Tohopekaliga was conducted to duplicate the natural conditions which existed before increased urbanization demanded water control. The major sportfish population was reduced during the drawdown, but within three years, the fish crop nearly doubled. Because the lake bottom had been allowed to dry out, organic sediment had been reduced by 50 to 80 percent. This provided healthier breeding grounds for desirable plant life, and total biological communities improved noticeably.

The Commission conducted a second drawdown project in 1977 on Lake Kissimmee. There, fish population samples indicated the number of young largemouth bass increased from 10 per acre in the shoreline area, prior to the drawdown, to 250 per acre following the refill. The success of this project was encouraging.

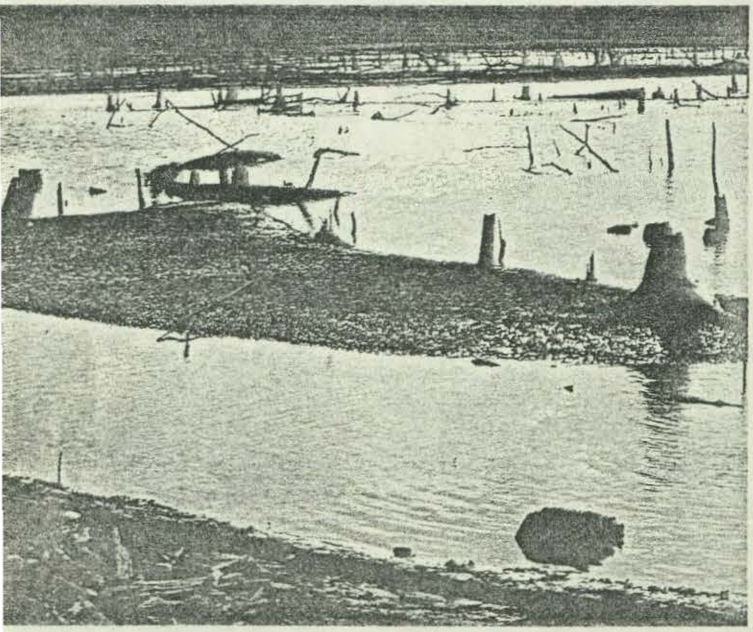
When Commission fisheries biologists learned that Lake Talquin was scheduled to undergo an extreme drawdown to facilitate repairs to its dam, they decided to take advantage of the opportunity to enhance the fishery habitat in the reservoir. The 10,200-acre lake was reduced to about 2,000 acres in September 1983. When the water level was 20 feet below normal, the exposed lake bottom revealed a bizarre landscape. In the 1920s, when the water was first impounded, cut forest land had been flooded. Following this recent drawdown, the exposed tree stumps gave the lake bottom the appearance of a no man's land.

As the warm, fall sun began to heat the lake's mushy bottom, the biologists continued their work. Winter rye was planted on about 1,000 acres of this fertile soil. After refilling, the rye grass will die and provide important nutrients, and serve as a prime nursery area for this year's hatchling game fish.

Lake Talquin's drawdown schedule had previously been set by City of Tallahassee engineers to make necessary repairs to the dam. Commission biologists had recommended that final refilling of the lake be delayed later than planned—until July. Research has shown maximum fisheries benefits are derived from spring drawdowns

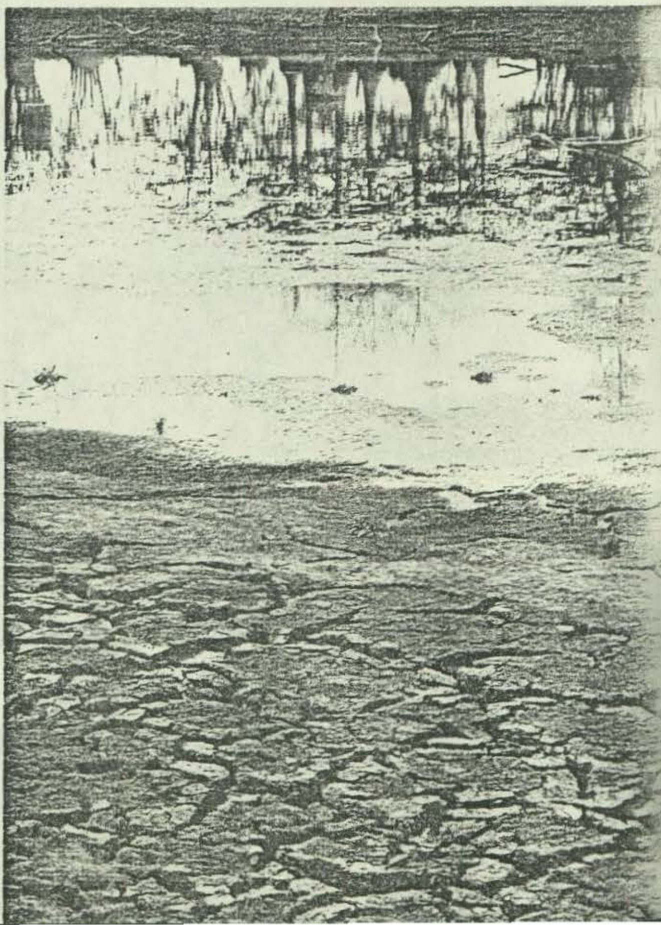


John Roberge-Photo



John Roberge-Photo

Lake Talquin's bottom is a maze of stumps, left over from when it was a forest floor. At upper right, a fishing boat's underwater grave was uncovered when the water was drained. At right, thick layers of mud crack as the bottom receives air and sunlight.



John Roberge-Photo

because germination of desirable aquatic vegetation is promoted in these conditions.

The engineers agreed to hold the water to the minus six-feet level, and in February, the dam was closed.

The lake soon rose to within six feet of its original level, but unusually heavy March rainfall briefly interfered with this plan. The lake rose quickly from minus six-feet to flood level in a matter of a few days. To reduce flooding along the swollen Ochlockonee River, Lake Talquin had to remain at normal level for a few weeks.

Contingent upon the lack of additional heavy rainfall, plans were set once again to reduce the water to the minus six-feet level attained in February. With the water at that level, Commission biologists would have an opportunity to encourage the growth of natural vegetation. However, April rains were above normal and the lake's water level rose again and had to be drawn down to the minus six-feet level again.

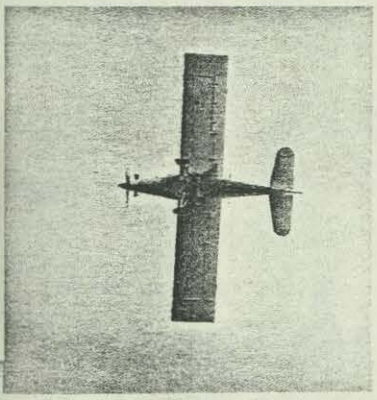
The lake rose quickly from minus six feet to flood level in a matter of a few days.

Barring more unexpected wet weather during May and June, and providing the minus six-feet level can be maintained, a variety of terrestrial and aquatic plants will germinate and grow on the exposed lake bottom. These plants play an important role in improving the fishery habitat. Upon refilling, terrestrial plants die quickly, then they decompose. This provides a short-term release of nutrients which allows a large increase in populations of microscopic plants and animals necessary to the survival of young fish. In addition, stalks and stems of these dead plants provide cover and protection for young fish such as fingerling largemouth bass. They also provide attachment sites upon which additional fish food organisms can grow.

Seeds, rhizomes and tubers of aquatic plants, which may remain dormant on a lake bottom for many years, are stimulated to germinate by this drying and refilling process. In contrast to short-term contributions of terrestrial plants, aquatic plants create nursery areas for young fish which typically last for several years.

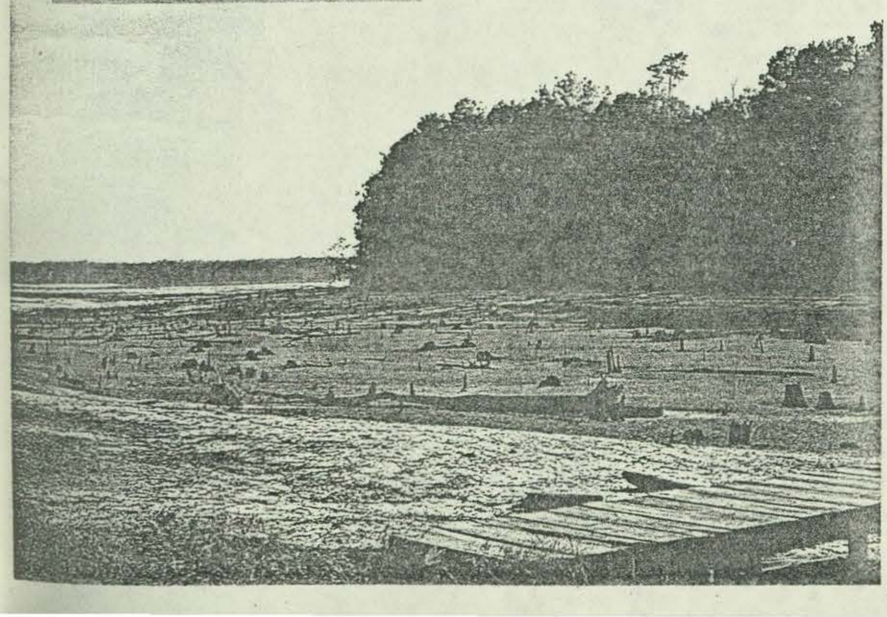
Despite temporary inconveniences caused by the delayed refill in terms of limiting access to the lake during spring, Commission fisheries biologists believe improvements to the sport fishery over the next few years will far outweigh these short-term disadvantages. Most importantly to fishermen, these long-term benefits should include better fishing success.

The water level of Lake Talquin is scheduled to return to normal by mid-July, and fish production will greatly increase as a result of the Commission's improvements to the spawning areas and overall habitat quality. By summer, fishing on Lake Talquin should begin to heat up. Much improved fishing should be evident by 1985. Optimal fishing is expected to begin in 1986 and peak in 1987-88. □



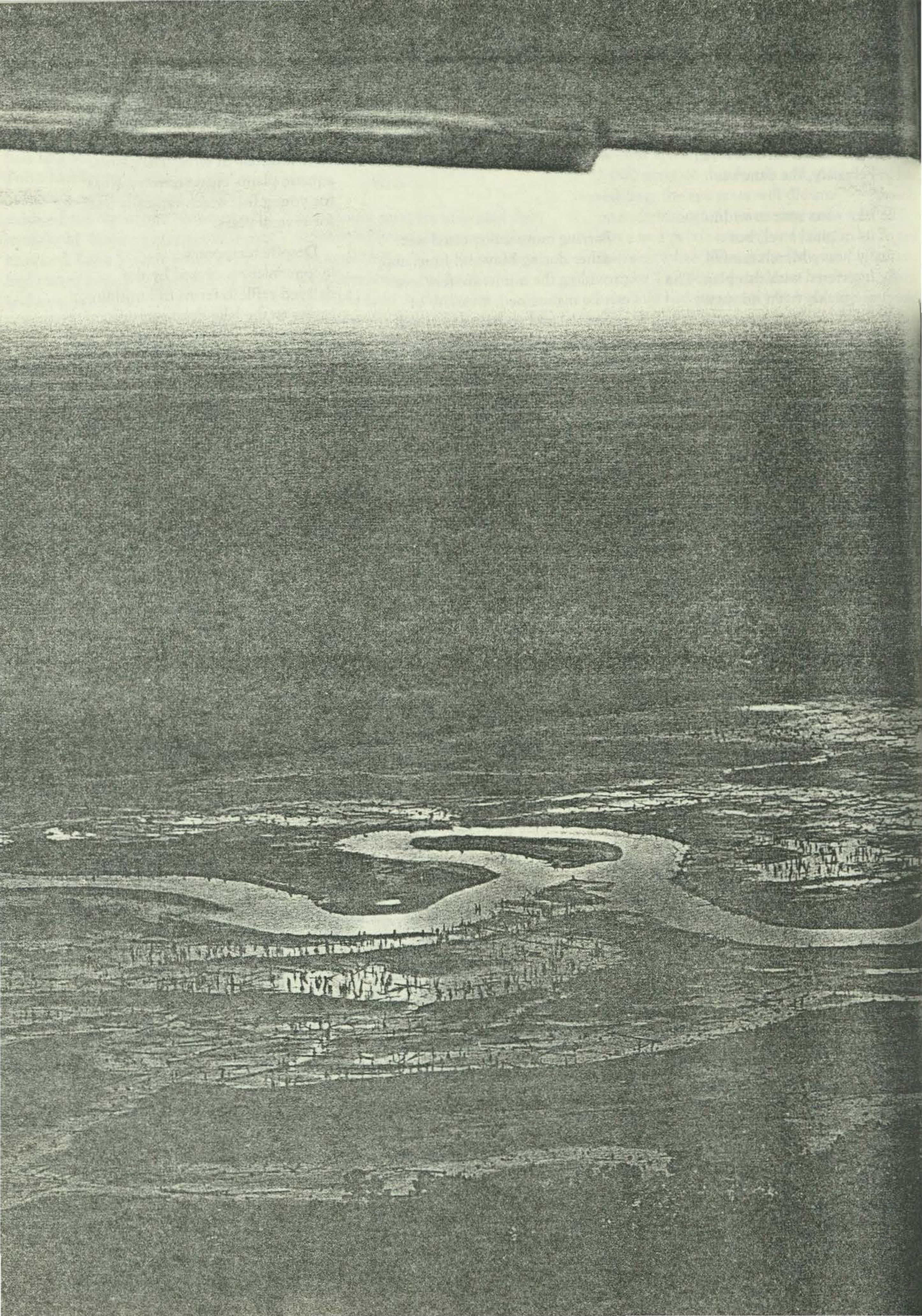
Dan Dobbins-Photo

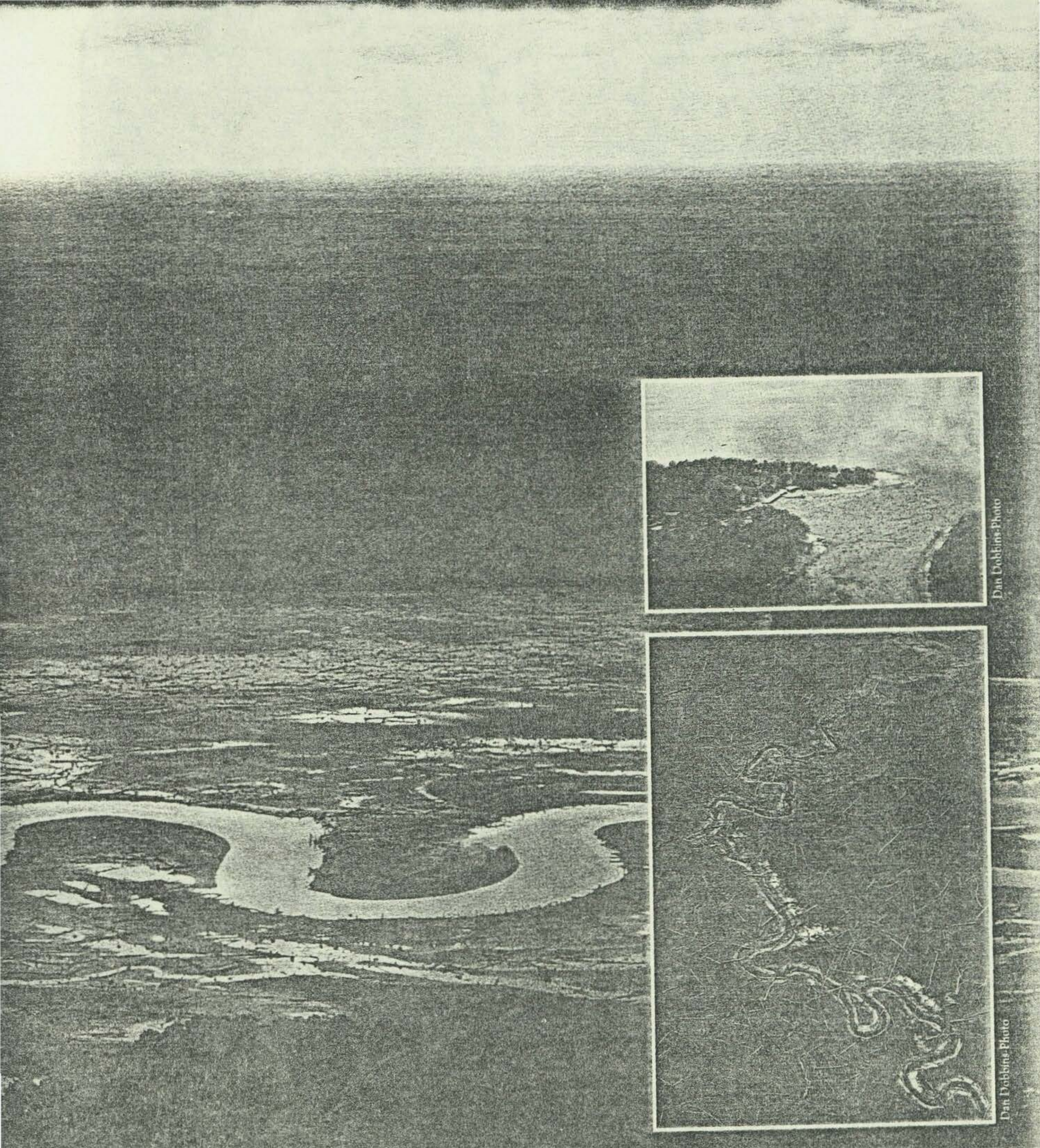
Although winter rye grass was seeded from an airplane, above left, much natural vegetation germinated from tubers and seeds that were lying dormant in the bottom sediments, below left. At right, a small clump of aquatic plants will provide attachment sites for tiny organisms upon which fingerling fish will feed.



Dan Dobbins-Photo

John Roberge-Photo





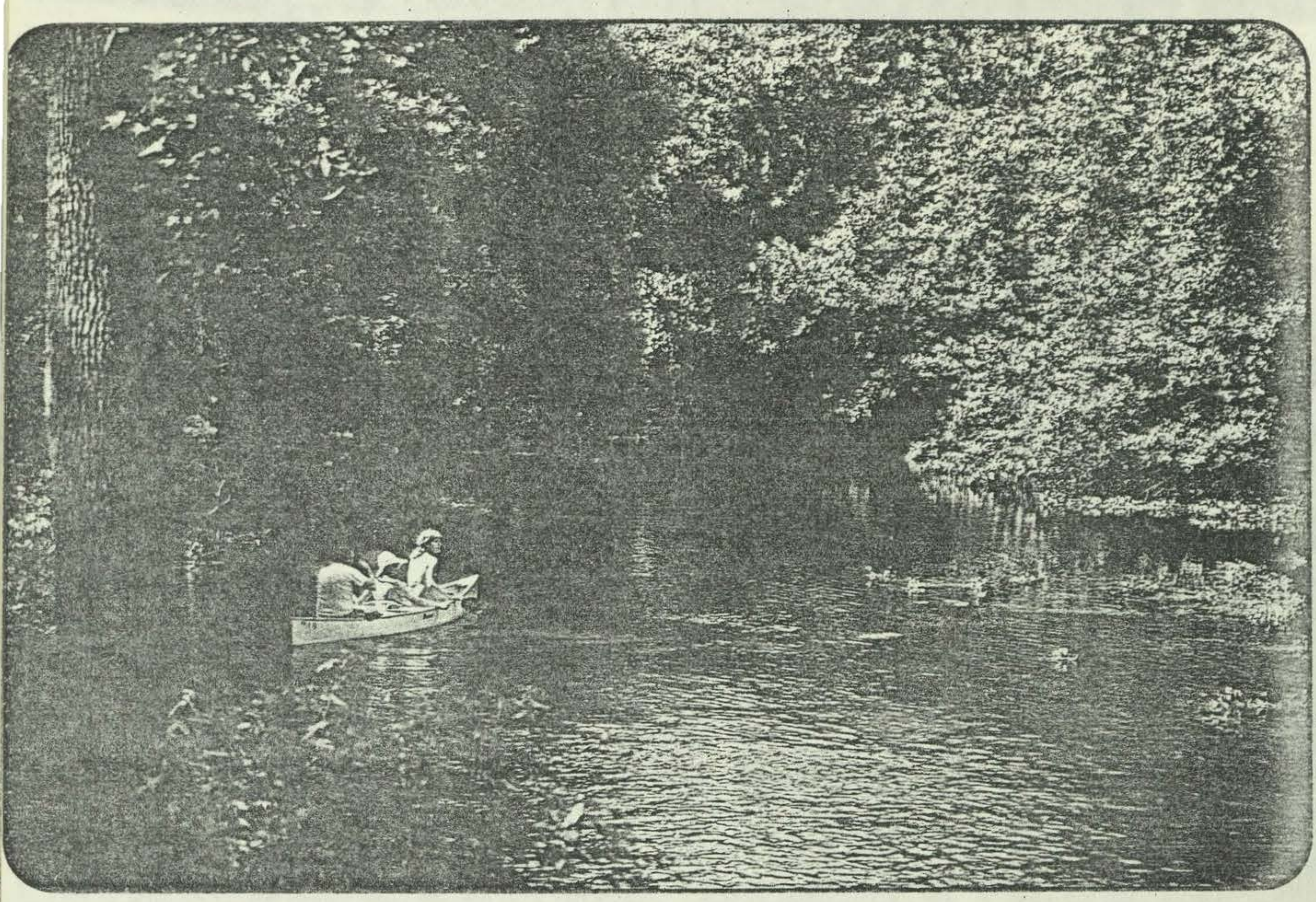
Dan Dobbins Photo

Dan Dobbins Photo

From the air, the channel of the Ochlockonee River contrasts with the lake bottom as it winds its way along a serpentine route to the dam. Uncountable logs litter the bottom.

ROCK SPRINGS RUN

By Linda C. Hyatt

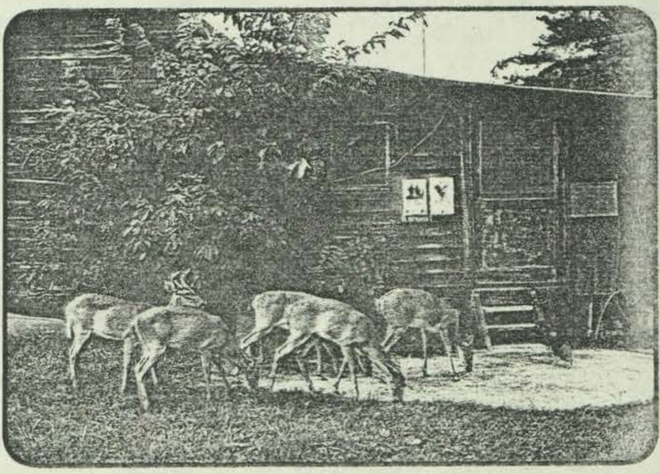


Linda C. Hyatt-Photo

The State of Florida has purchased more than 8,500 acres located in Orange County, to be known as Rock Springs Run State Reserve. The reserve borders some 14 miles along the spring-fed Wekiva River and Rock Springs Run. It is intended to be used for recreational purposes in the near future. The land now provides habitat for 22 species of rare, endangered or threatened plants and wildlife, including Florida black bears.

The reserve, under cooperative management by the Game and Fresh Water Fish Commission, the Department of Natural Resources and the Division of Forestry, is not presently open to drive-in visits. Plans are being made by DNR, however, to provide public road access and the Commission will open the land to public hunting this fall.

Photographers and wildlife enthusiasts have hours of pleasure awaiting them when the gates do open. Early birds and eager beavers can get a glimpse of the new reserve now by launching a canoe from King's landing, near Apopka, and paddling to their heart's content. Fishermen can try their skills on the largemouth bass, bluegills or redbreasts which are found in the clear, shallow water.



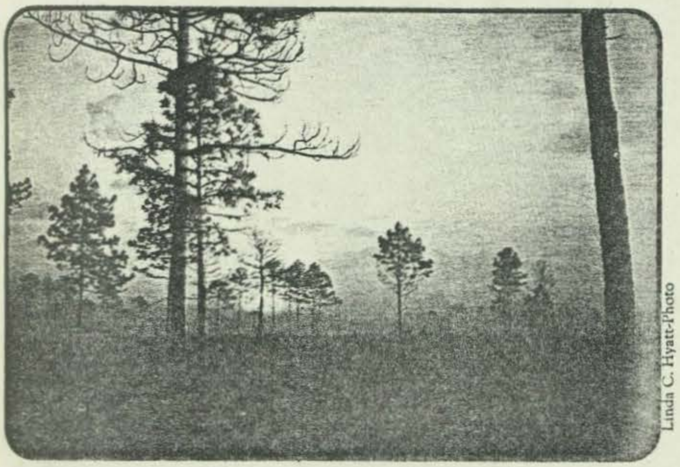
Linda C. Hyatt-Photo

Imagine a canoe trip along the tranquil Rock Springs Run, the current drifting you past rare plants, wildlife and even Native American burial mounds! We can only imagine how little has changed since the mound builders, ancestors of the Timucuans, inhabited these banks. The mounds date back 1,100 years. If you should visit these ceremonial sites of those early Floridians, remember it is against the law to dig or otherwise disturb them in any way.

You may also have an opportunity to photograph white-tailed deer or playful otters along the way. Black bears call the Wekiva land tract their home, and a lucky visitor might catch sight of bear cubs hiding in one of the tall pines.

A few wild hogs and turkeys range in the sandier regions, while bobcats and raccoons leave their tracks along muddy trails nearer the creek. An old wooden camp house, built in the 1800s, is located near the soon-to-be park ranger's headquarters.

Floridians and visitors alike who want to get away from the excitement and crowds at tourist attractions, or the sometimes hectic lifestyle of central Florida, can plan now to visit this wild and beautiful place. □



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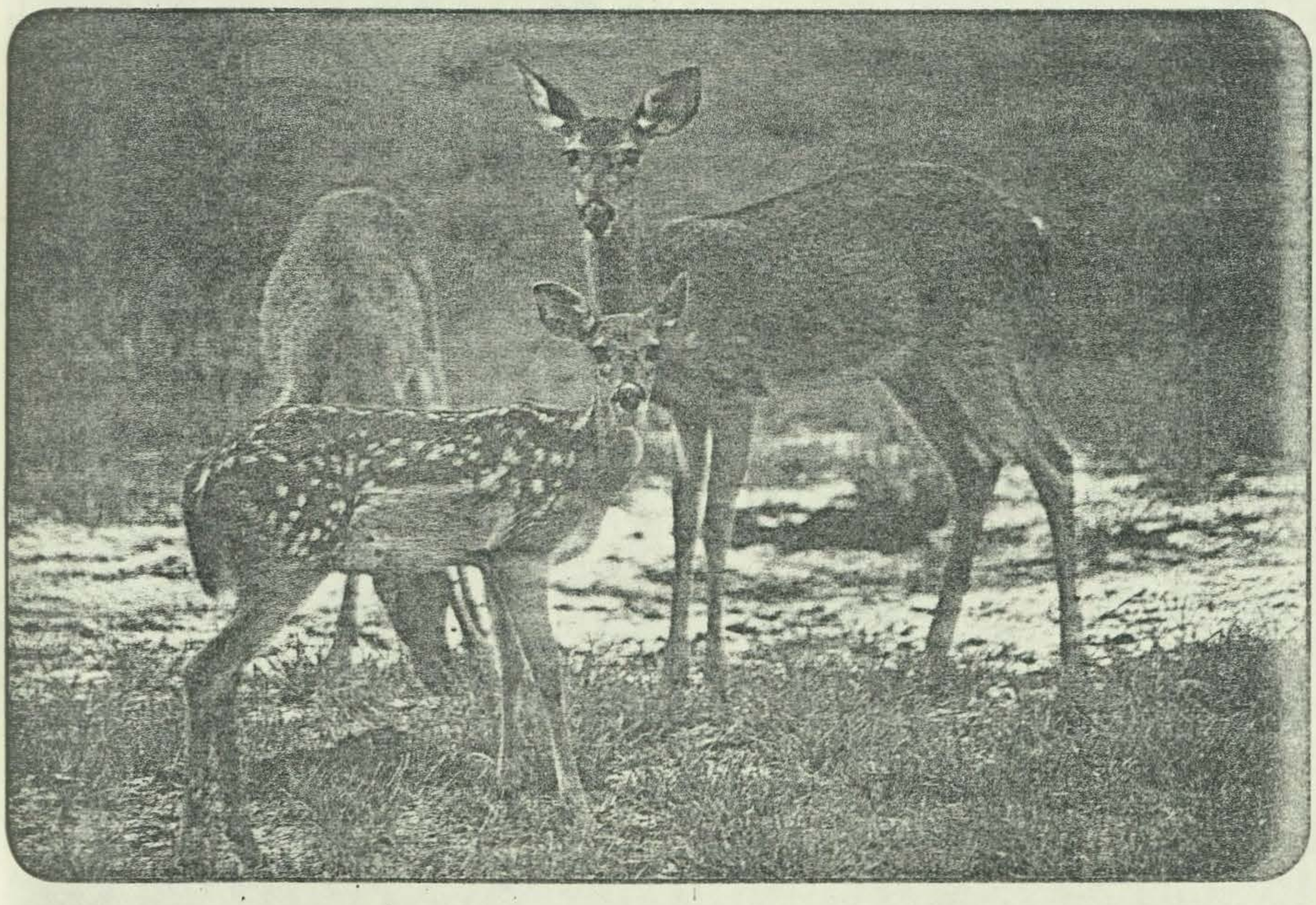

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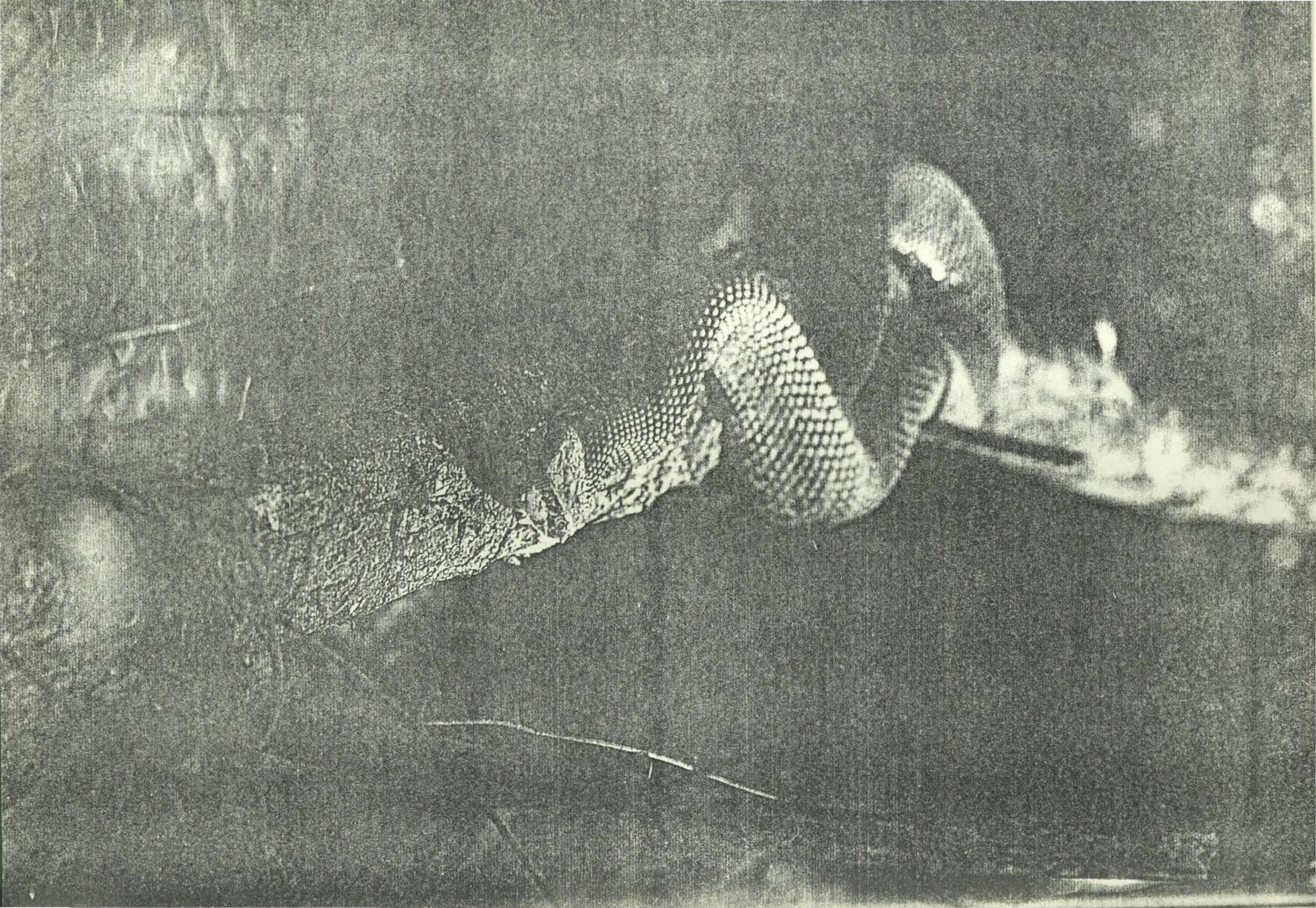


Cottonmouth RESEARCH

By Leslie Ellis

We came to hunt for cottonmouth moccasins last summer in what seemed a very unlikely setting. David Cook, a technician at Tall Timbers Research Station north of Tallahassee, and I walked along the bank of Anders Branch as it wound serenely through the northwest woods of Tall Timbers.

Flowing at an average of six inches deep and not more than a yard wide, this peaceful stream is canopied by beech, magnolia and water oak branches that effectively blot out the summer scene. Spiders lazily wove huge webs overhanging the edge of the stream, and insects and birds chorused together to provide background music for our walk.

Just as I was beginning to be lulled by the serenity of the setting, Cook's voice broke my meditation. "Better not take another step forward or you'll step on that snake!" he warned. I froze. Coiled on a tree root, not one foot ahead, was an 18-inch, varicolored cottonmouth water moccasin. It was almost completely camouflaged.

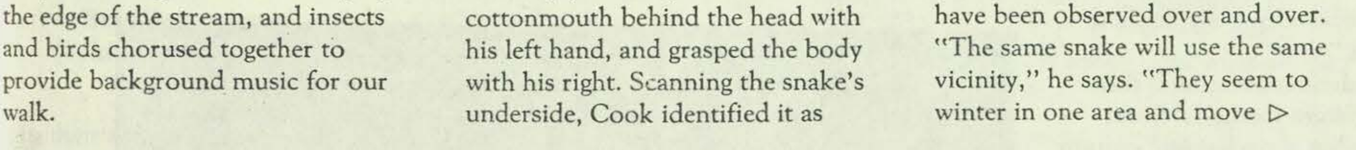
Cook reached down with a clamp stick (a long stick with pincers) and grasped the snake around its midsection. Gently, he placed his boot on the snake and pushed the head down with the clamp stick. He carefully picked up the cottonmouth behind the head with his left hand, and grasped the body with his right. Scanning the snake's underside, Cook identified it as "Number 79," a juvenile male which had inhabited this area since 1981.

Since he began his study in the fall of 1980, as part of research for a master's degree in zoology from the University of Florida, Cook has captured and identified approximately 130 cottonmouths, either along Anders Branch or in surrounding areas.

With his stated goal of trying to "advance the understanding of this animal," Cook focused primarily upon activity and movement patterns of the cottonmouth. He has discovered several unusual things about these venomous snakes.

"They seem to use this stream as a sort of nursery," he explains. "It appears to be an age-specific type of habitat. The snakes are born here, feed on frogs and grow to about 30 inches long. Then, they leave the stream to seek open piney woods where they feed mostly on small mammals."

Although Cook never again sees some of the snakes he catches, most have been observed over and over. "The same snake will use the same vicinity," he says. "They seem to winter in one area and move ▷



David Cook-Photo

At left, a healthy cottonmouth rests on a small tree that leans over the stream. They spend most of their time along the water, rather than in it. Hidden in the greenery above, is a more brightly colored juvenile, coiled and ready to strike. David Cook followed these snakes for research.

through a particular home range in repeatable patterns."

How does Cook know when he sees the same cottonmouth? He explains, "I capture the snakes, bring them back to the laboratory, anesthetize them, paint a code on their skins, weigh them and determine their sex. Then, I take the snakes back to the exact spot where I found them and release them. From then on, I simply record how often and where I see the marked individuals."

Coding these moccasins is done by two different methods. Since each snake has an individual pattern of subcaudal (under the tail) scales, Cook first notes in his field data book the snake's specific scale configuration. Then, while the snake is still anesthetized, he carefully snips out a small section of scales. This provides a permanently marked pattern. In addition, Cook also codes their skins with painted, colored dots so individuals can be visually identified without actually handling them.

It is not always easy to locate a cottonmouth. They have excellent camouflage coloring and are often found under brush, in stump holes, under fallen logs or in small holes left by burrowing animals where they are difficult to see. To help find them, Cook also uses a radio telemetry tracking system for some of the larger snakes. With this method, he force-feeds a small transmitter into the snake and then releases it. As with the other marked snakes, Cook goes out just about every day to record the whereabouts of as many as he can locate. In the case of the transmitting snakes, Cook plays what he calls "Dial-a-Snake" by locating the snakes with an electronic receiver.

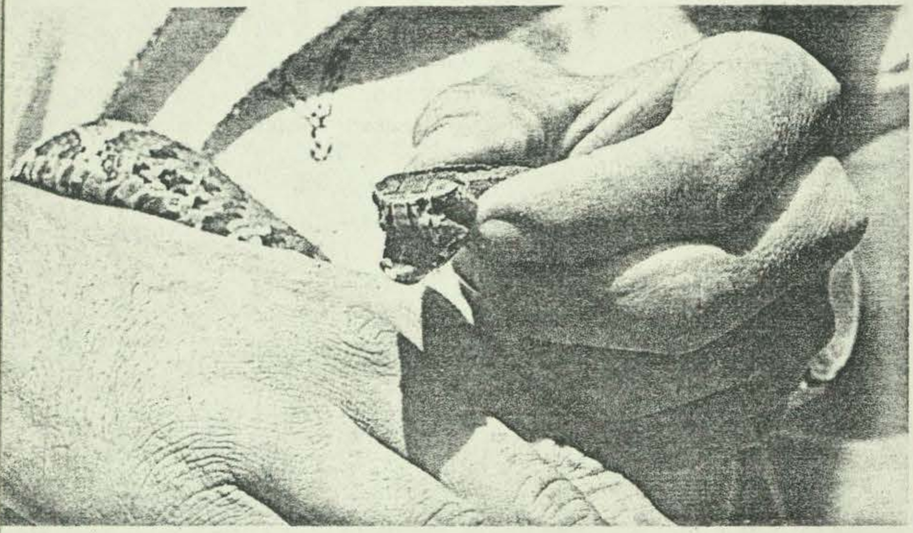
His research results have shown that, although cottonmouths can be found at all times of the day, they are primarily nocturnal. Also, contrary to popular belief, when the younger ones are near the water, they do not usually stay directly in the stream. Most often, they perch on roots or hide along the sides of the stream.

One of Cook's most interesting findings has been the peculiar method by which very young cottonmouths find their food, or rather how their food finds them. A juvenile will conceal itself except for its bright, sulfur-yellow tail. It wiggles its tail enticingly as a lure to any frogs or lizards that might be nearby. When the unsuspecting creature comes close to investigate, the snake strikes out and captures a meal.

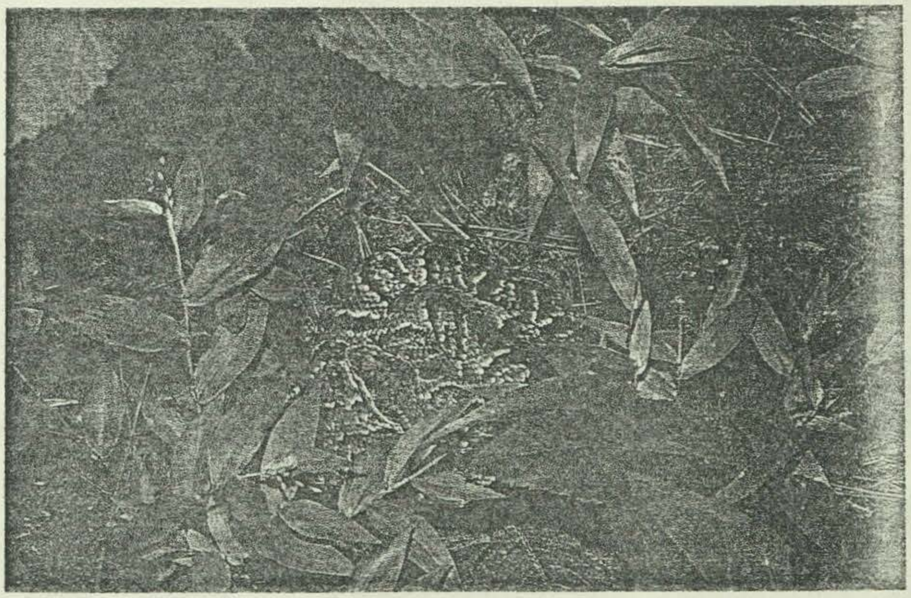
"These animals are able to adapt to many different habitats," Cook explains. "The main reason is that they are opportunistic. They eat anything—from frogs and carrion to rabbits and squirrels—and the young are very adaptive in luring food."

Results of Cook's research are planned for release in several professional journals. "This is only a beginning, though," Cook says. "My career goal is to continue doing field research on snakes.

"I like doing this type of research. There is much to learn about these creatures. They are found throughout the United States, yet very little has been done with them." □



D. Bruce Means—Photo



David Cook-Photo

At the top, Cook shows a juvenile cottonmouth's fangs as he carefully holds the snake—both to keep the fangs out of his hand, and to avoid injury to the snake. The bottom photograph shows how these pit vipers blend in with their natural habitat. Writer Ellis nearly stepped on one!

Exotic Plants Threaten Natives

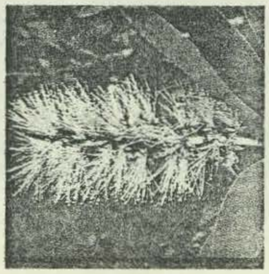
By David S. Addison

Over the years, hundreds of species of ornamental plants have been introduced into south Florida. Most are of tropical origin and have provided an exotic touch to landscape design which is popular with Floridians. The majority of these plants are assets and have presented no problems for land managers; however, some of them have escaped cultivation and become serious pests, and have potential for reducing wildlife habitat.

Four species currently present south Florida with environmental problems of monumental proportions:

Dave Addison-Photo

—Brazilian pepper (*Schinus terebinthifolius*)


Dave Addison-Photo

—Melaleuca (*Melaleuca quinquinervia*)

Dave Addison-Photo

—Australian pine (*Casurina* species)

Gary Patterson-Photo

—Downy rosemyrtle (*Rhodomyrtus tomentosus*)

In their native exotic habitats, competition from other plant species, growing conditions, disease or insects limit the spread of these plants, but similar checks are not present in south Florida. As a group, these four are fast growing, produce large seed crops and compete with native species for space.

Their aggressive growth patterns are particularly evident in transitional ecosystems and disturbed areas such as spoil banks, roadsides, abandoned farm land and sites that have been cleared for development. In such areas, they interfere with the natural sequence of succession and, they typically form pure stands (monocultures).

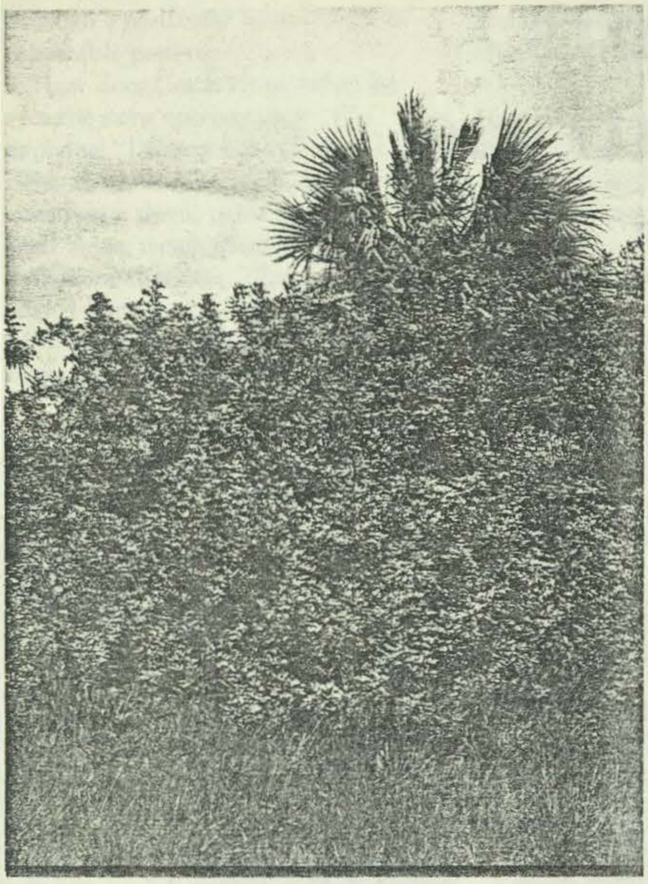
The habitats created by these exotic plant monocultures are of questionable value to wildlife. They lack the diversity of a native forest. They invade many natural plant communities, including piney flatwoods, mangrove forests, beach dunes and our native tropical hammocks. In doing so, they characteristically reduce the diversity of these natural plant communities, and do little for wild animal species.

With the exception of Australian pine, these fast growing plants may greatly increase chances for destructive forest fires. By forming dense thickets in pinelands, they are a large fuel source which can burn with enough intensity to destroy an entire forest.

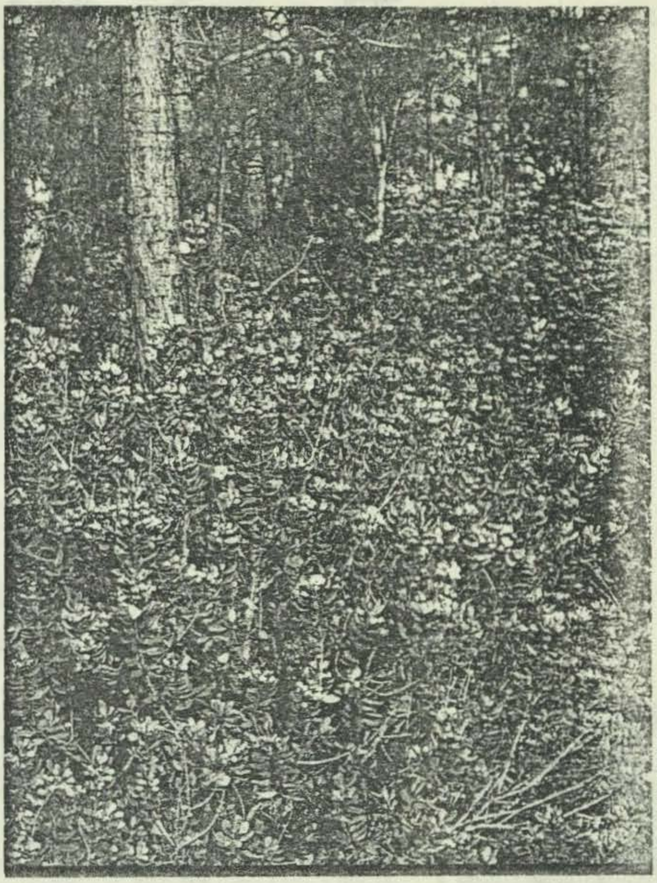
This leaves the land open to dominant re-establishment of the exotic plants rather than a more valuable pine community. Individually, these plants cause many other problems. For example, Brazilian pepper, a poison ivy relative, causes respiratory ailments and skin rashes in some individuals. Several years ago, Brazilian pepper fruits were sold at exhorbitant prices as food seasoning ("peppercorns") in a large Eastern city. Many people who ate food seasoned with those ground Brazilian pepper fruits became ill.

Some birds become drugged when they eat Brazilian pepper berries and fly into cars or buildings and kill themselves. Brazilian pepper often forms such dense stands along canal banks that it blocks anglers' access to the water. Growing under power lines and along roadsides, all four of these exotic plants are constant maintenance problems.

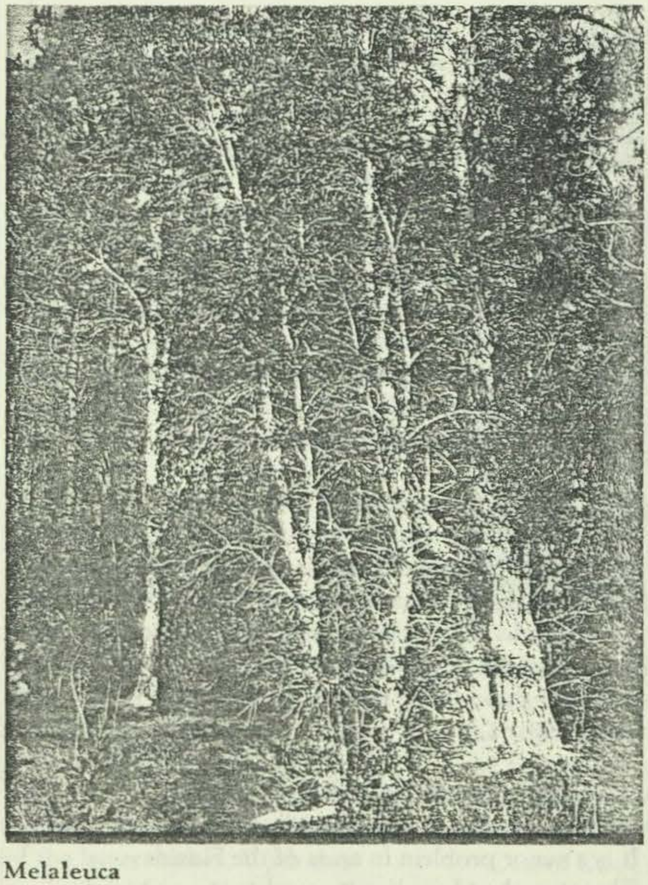
Aromatic chemicals given off by melaleuca flowers cause respiratory problems for many people, especially asthmatics. It is a major problem in areas of the Florida Everglades. This pest plant has almost no value to wildlife, and in the areas where there is natural fluctuation of water levels, it is very prolific. ▷


Dave Addison-Photo

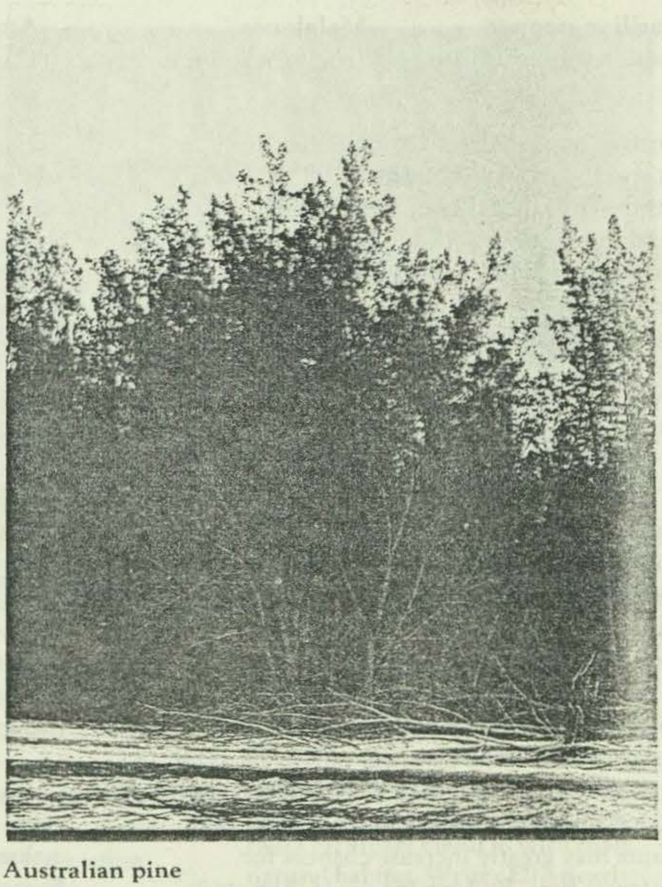
Brazilian pepper


Dave Addison-Photo

Downy rosemyrtle


Dave Addison-Photo

Melaleuca


Dave Addison-Photo

Australian pine

Melaleuca has very light, airborne seeds, and when cut, tends to release these seeds. A single tree produces an incredible number of viable seeds. It seems to resist fire and cutting. Melaleuca readily takes over where conditions permit.

Australian pines have very shallow-growing root systems and are easily blown over by high winds, especially during hurricanes. The costs of cleaning up the debris can be very expensive—in the millions of dollars when damage is extensive.

The tangle of roots formed by Australian pines growing along beaches interferes with sea turtle and crocodile nesting. Native beach vegetation, which is far more effective in stabilizing beaches, is also crowded out by these trees, and beach erosion can be accelerated when they are blown over.

Downy rosemyrtle can form extremely dense clumps that are very difficult to remove. The fruits have many very tiny seeds—perhaps a hundred each—and when clumps of this plant are dug out, the seeds which remain germiate readily. Some native animals feed on the fruits and spread the seeds by droppings. Thus, downy rosemyrtle can appear almost anywhere.

Downy rosemyrtle has the same potential as Brazilian pepper for spreading to new areas having favorable conditions for its growth. Presently, it is found in isolated scattered stands, but this plant has a very favorable chance for spreading farther. Once seed populations reach a certain threshold, spreading can occur extremely rapidly.

The common names of several of these plants sometimes mislead people into thinking they are desirable plants instead of pests. Australian pines are not true pine trees, but merely resemble them. Brazilian pepper is often incorrectly called "Florida holly." True Florida holly, commonly called dahoon holly (*Ilex cassine*), is a small to medium-sized tree. It is closely related to American holly (*Ilex opaca*) which is so much a part of the Christmas season.

Individuals can help control these exotic pest plants. Homeowners, for example, can chose not to use these plants as ornamentals. If any of these species are already established, they can be removed and replaced with more desirable beneficial plants, such as nursery-grown native species. And removing the pest plants can eliminate seed sources.

Commercial landscapers and nurseries can also discourage use of these four exotic pests. Some cities and counties have ordinances that prohibit their sale. Collier County's ordinance requires developers to remove these species from their property.

By selectively removing these undesirable plants, builders can maintain and even enhance the value and appearance of their holdings. At the same time, they can lend a helping hand to the long-term integrity of south Florida's unique environment.

For property owners faced with extensive stands of these plants, techniques have been developed for large-scale removal of all four species. Specific guidance from various state and federal agencies and county agricultural extension agents is readily available. Some state and national park offices can provide useful information and there are also commercial companies which specialize in their removal.

When seeking the services of a professional tree service, you should be aware that state and federal pesticide applicator's certificates are required to legally apply herbicides in residential areas. Be sure before you contract for services that the company is reputable, insured, and has certified employees to apply these chemicals safely.

Small numbers of these pest plants can be destroyed by cutting them down, then immediately painting the stumps with straight diesel fuel or an appropriate herbicide. Again, state and county agencies can be helpful in choosing an effective herbicide. Without certification permits, many herbicides cannot be legally purchased, nor applied by individuals, so get some advice.

Downy rosemyrtle is difficult to treat with herbicides because of the dense stem growth of its clumps. Multiple applications may be necessary to finally kill it, including applications to newly-sprouted seeds that tend to germinate after older stems are removed.

With downy rosemyrtle and others, suckers may sprout from left-over stumps or from the roots. This new growth may also require treatment.

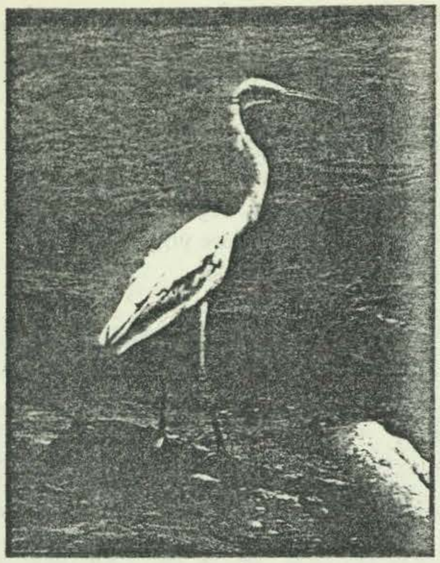
With non-chemical treatments, persistent removal of new sprouts is sometimes necessary to eventually starve the root system. The struggle to kill them without herbicides can go on for years if the plants are large and have extensive roots.

There are important precautions which you should follow when hand removing Brazilian pepper. If you have ever had any reaction to touching Brazilian pepper, you should probably hire an expert to do the job. If you are uncertain if or not you are allergic to this plant, you should wear disposable, nonporous gloves if you choose to remove the plants yourself. Severe reactions to handling this plant do occur, sending some unsuspecting persons to the hospital.

Never burn the cuttings where people may come in contact with their toxic fumes. Spring is the best time to cut and haul away Brazilian pepper trees. This is when the stumps will actively absorb herbicides, if they are used, and the time when the trees are not in fruit. Spring is also the best time to apply herbicides to many other south Florida exotic plants.

Three species of Australian pine are found in Florida. Two of these grow to tree size; the third forms a hedge. The general reason for their removal by homeowners is the safety threat the tall, shallow-rooted trees pose during windstorms.

Removal of large Australian pines is a job for professionals. The wood is extremely dense and heavy and it rapidly dulls cutting equipment. Small specimens, which can be pulled by hand or easily dug out with a spade, should be removed as soon as possible. These trees are fast growers and spread rapidly, so diligence is a dividend. □



Lovett Williams-Photo

Expanding Our Vision

A Nongame Perspective

By Laurence R. Jahn
Vice President, Wildlife Management Institute

Editor's Note: *Last November, the Game and Fresh Water Fish Commission sponsored a nongame conference to bring wildlife experts and the public together to assist in developing a nongame wildlife program for Florida. One of the main speakers there was Laurence Jahn of the Wildlife Management Institute. What follows are exerpts from his presentation.*

Pictured above-Great white heron

Management approaches dating back to Colonial days of the mid-1600s dealt largely with providing protection for individual wildlife species, such as proclaiming a six-month closed season on deer in Rhode Island Colony. From such early proclamations, regulatory management programs for wild living resources were advanced during the next few centuries.

Prohibiting the taking of wading birds for their feathers, which were used to decorate hats and other items in the late 1800s and early 1900s, eventually ended such historic commercial activities. These legal actions for wading birds, now generally considered nongame birds, curtailed their taking and eventually helped restore their populations.

Public concern and demand for action, combined with effective conservation leadership, brought about this and similar protection and management efforts in the public interest. Public sensitivity to wildlife and its needs is firmly rooted in our national history.

This long-standing public interest has stimulated successful pioneering rescue efforts for individual species and groups of species. Included have been sea otters, migratory birds, bald and golden eagles, whooping cranes, black bass, wild turkeys, elk and Florida's key deer. As these experiences accumulated, there came the realization that every animal is part of an interrelated web of soil, water and vegetation—collectively known as habitat—required for reproduction and survival. Slowly, attention focused on plant and animal communities, the functional processes involved, and actions required to perpetuate wild living resources through habitat management.

By the 1930s, the first American game policy was set forth. It focused on the fact that demands were outstripping supplies of wildlife, and on the need to restore America's wildlife resources through practical management which would provide wild animals with food, cover and living space. It also focused on additional needs for, and uses of, sound regulations to limit taking wildlife and to ensure the survival of breeders to perpetuate wildlife populations.

The management position more than 50 years ago was to consider wildlife as a whole, with special emphasis on game animals. In those days of national economic depression and drought, the question was phrased, "Where are the funds for habitat control and law enforcement to come from, if not from the privilege of harvesting excess game crops?"

Income from sales of hunting and fishing licenses was later supplemented with income from federal duck stamp sales (starting in 1934), excise taxes on arms and ammunitions (in 1937), and from certain fishing tackle (in 1952). Collectively, funds from these sources have provided the financial base for staffing resource management agencies with the trained biologists and managers required to strengthen fisheries and wildlife management programs.

The growing need to strengthen existing fish and wildlife programs, and make them more comprehensive, has stimulated a wide variety of activities in the last two decades. Many useful conservation laws emerged, including the Endangered Species Acts of 1966, 1969 and 1973. Overall, these and other conservation acts require broader and more imaginative application of fish and wildlife management than in the past.

Rescue operations for individual threatened and endangered species now are formalized in population/habitat objective-oriented recovery plans. The overall goal is to restore each population by having reproduction gains exceed mortality losses, and then to remove those populations from the threatened and/or endangered species lists.

Mike Fogarty-Photo

Pictured above-Peregrine falcon

But the second, and vastly more important, objective of fish and wildlife management plans and programs should be to *prevent* each species' population from becoming so depressed that it must be entered on the threatened or endangered lists.

With these goals and objectives to perpetuate fish and wildlife populations evolving, the 1970s and 1980s witnessed determined efforts by citizens, professional resource managers and conservationists to strengthen existing plans and programs for wild living resources. The dominant philosophy was, and is, that all fish and wildlife species populations be given proper emphasis in resource management programs.

One of the first steps to strengthening a state's program for wild living resources is to inventory and monitor fish and wildlife populations. While information on the population status of many game species is collected annually, similar essential data are collected routinely, but only on certain nongame fish and wildlife populations.

A number of actions have been taken to build stronger programs for wild living resources. One major step was the National Fish and Wildlife Conservation Act of 1980, the so-called "Nongame Act."

The purpose of the Nongame Act is to provide financial and technical assistance to enable individual states to develop comprehensive conservation plans for fish and wildlife, and to undertake specific nongame management projects. However, no general funds have yet been appropriated to implement the act, but federal aid funds (up to $250,000) have been made available to complete a study now under way. The study will determine the most equitable and effective way to fund the authorized planning and research/management projects.

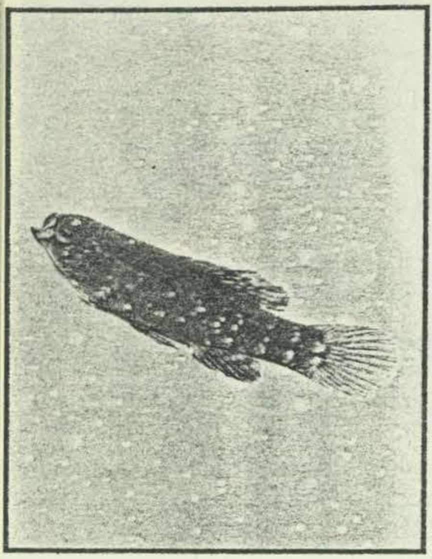
In the absence of federal grants, the states have moved forward to identify additional sources of funds to strengthen their research/management programs. Thirty states now have a state income tax check-off system for funding nongame fish and wildlife programs. Other states which have a state income tax are seeking legislative approval of a check-off system. Without a state income tax, Florida can't join this group.

"Wild living resources serve as barometers of the quality of the environment, and their status signals problems that need attention."

The largest source of new money in any state has been Missouri's one-eight of one percent sales tax. It now provides about $35 million per year, or approximately 60 percent of the total budget for Missouri's Department of Conservation.

Wild living resources serve as barometers of the quality of the environment, and their status signals problems which need attention. For example, experiences with peregrine falcon, eagles, and various fishes (and the adverse impacts on their populations from DDT, DDE, PCBs and other chemical compounds) signaled the need for different environmental management practices. Alternative management practices have permitted restoration of some peregrine, eagle and other populations to vacant, but suitable, habitats.

Governments, not solely fish and wildlife agencies, must conduct activities to prevent and minimize human activities that degrade and/or destroy important habitats. Inconsistencies among governmental programs and actions should be avoided. This does not mean stopping all proposed developments. Rather, it means *planning* proposed developments to provide multiple benefits for both wildlife and people. ▷



Wallace Hughes-Photo

Pictured above-
Everglades pygmy sunfish

Wise use of natural resources constitutes the foundation of conservation programs. Principles of sound resource use and management must be applied broadly to all human activities, including agriculture, forestry, housing developments, proposed water and associated land developments, and to waste disposal, such as releasing exhausts and other chemicals into the environment.

Degradation of existing national parks, wildlife refuges and other public lands by activities outside of these areas emphasizes that we cannot merely purchase land and water areas to resolve problems. Acid precipitation can degrade aquatic life and harm forest vegetation. Water quality in rivers may be degraded by heavy loads of sediments and associated chemicals. Flows of water in river channels and levels of underground water tables may be reduced by irrigation and other heavy demands for water.

People in Florida know only too well what has happened, and what continues to happen, as water flows to the Everglades are cut off. Governor Bob Graham's recently announced plan to acquire acreage to maintain the water supply required to perpetuate the Everglades' grassy aquatic communities illustrates the kinds of action required in some situations.

At least two perspectives, rather than one, must be used to visualize appropriate management approaches. What is done on site, whether on a home lot or farm, or in a woodlot or forest, has potential accumulative effects when combined with actions of neighbors, as well as potential off-site effects at both close and distant locations in the watershed. Having these perspectives and broader dimensions incorporated into resource development and management plans, decisions and actions is the pressing challenge of our time.

Initial steps to use this comprehensive, ecologically sound management approach has been taken in Florida. In 1982, the Game and Fresh Water Fish Commission began to develop, and will implement within three years, a comprehensive fish and wildlife planning system. It features project objectives stated in terms of inputs of staff time and dollars and the public benefits to be realized from those investments. These are important steps in the right direction to place all fish and wildlife management on a more comprehensive basis.

"Now is the time to strengthen plans and programs for wild living resources and their management."

Existing limited budgets will slow the development of more comprehensive programs for wild living resources. Unless new funds are obtained from one or more sources, evolution of state programs will proceed at a snail's pace. Because the sources of funds to support management programs for wild living resources vary among states, as well as the political climates for obtaining new monies, each state must evaluate its particular situation and energetically seek a more appropriate level of funds from new sources. These are tasks facing almost all states, including Florida, today.

Now is the time to strengthen plans and programs for wild living resources and their management. Our immediate tasks are to forge reasonable, practical resource management actions that will perpetuate wild living resources. Successes in these efforts hold substantial promise for continuing to stimulate the economy by more than $40 billion per year and to maintain the quality of life for all citizens, including Florida's residents and visitors. □

Backyard Wildlife

By B. A. Smith

Many Florida homeowners can have a nature trail on the home place, a path through thickets; a walk under pines; a spot left untamed, unmowed and undisturbed. My trail begins under a row of Australian pines, planted as a windbreak many years ago, and meanders over two acres.

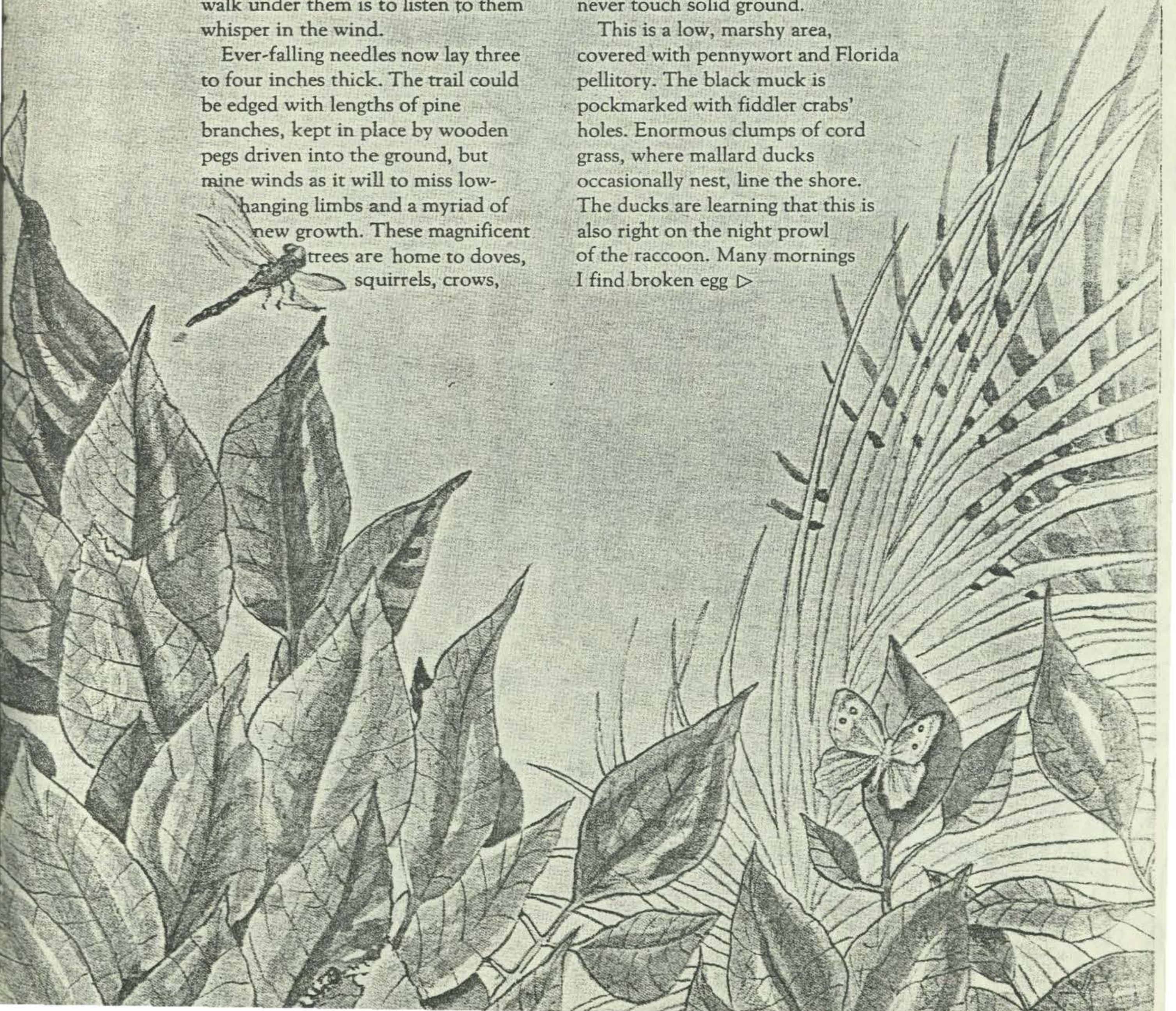
The pines are my favorite trees. The pathway beneath is narrow, just wide enough for dog and man. To walk under them is to listen to them whisper in the wind.

Ever-falling needles now lay three to four inches thick. The trail could be edged with lengths of pine branches, kept in place by wooden pegs driven into the ground, but mine winds as it will to miss low-hanging limbs and a myriad of new growth. These magnificent trees are home to doves, squirrels, crows, owls and, in the summer, hordes of mosquitoes! It weaves between sun and shadow, and soon comes to the river's edge.

The path ambles under water oaks which support Spanish moss and air plants, and beneath cabbage palms, one of which supports a healthy poison ivy vine.

Squirrels have devised a freeway through the top branches of all these trees. They can speed from the north property line to the south and never touch solid ground.

This is a low, marshy area, covered with pennywort and Florida pellitory. The black muck is pockmarked with fiddler crabs' holes. Enormous clumps of cord grass, where mallard ducks occasionally nest, line the shore. The ducks are learning that this is also right on the night prowl of the raccoon. Many mornings I find broken egg ▷



shells littering the walkway. This section of the trail follows e river for about 150 feet along lt marsh bulrushes and angroves. The mangroves are sential parts of the river ecology. sh, crabs, frogs and turtles gather nderneath their roots to feast on innows and "water bugs." In turn, ey too become part of the food hain that perpetuates the natural orld.

An old dock, no longer in use, is earby. Mostly only rotted pilings re left, yet a few pieces of good umber are strong enough to upport six planks. On top, a rudely constructed observation eck is perfect for watching the iver and wildlife.

At certain times of the year, a substantial sandbar builds up in the shallow water and acts as a magnet for small herons, wood ibises, gulls, terns and other wading birds. It is pleasant to see them poking around for crustaceans. Pelicans and cormorants are also common. It is relaxing to watch them flying swimming, diving and perching.

The nature trail turns eastward from the old dock, and wanders around the tallest slash pine on the place. For more than 30 years, the tall pine has served the great blue herons and their descendants as a "look-out." From there, a carpet of oak leaves softens the way through a palmetto thicket. The palmetto berries provide food for seed-eating birds, including migrating robins.

The palmetto section requires the greatest maintenance. Their fronds litter the ground and do not decompose quickly, so I haul them out. A brush pile built with prunings and trash cleared from the trail provides a home for rabbits, opossums, raccoons, field rats and lizards. Within the pile now are tunnels and hollows where wild things sleep in safety.

Farther on down the trail are dog pens and an old shed. The fencing is covered with trumpet vine, a favorite of humming birds. Next are two hedges of ixora. This "flame of the woods" is attractive to butterflies—zebras, swallowtails and, a special favorite, monarchs.

Around the hedge is a grove of scrub oaks, many of them riddled with woodpecker holes. Each year I see one or two pileated woodpeckers on the trees. Brown rabbits have a colony under a tangle of vines beneath the oaks. Springtime brings nesting mockingbirds, red birds, brown thrashers and blue jays that may attack as you pass by their nests of young.

And there is an open field. I have literally beaten a path around its perimeter with my boots, leaving a rut of good ol' Florida gray sand, but still a path from which to take notice of any activity in the field. It is not mown often, so partridge peas have a chance to grow. This brings the quail and the tall grasses provide cover. I have even found dove eggs in the sand.

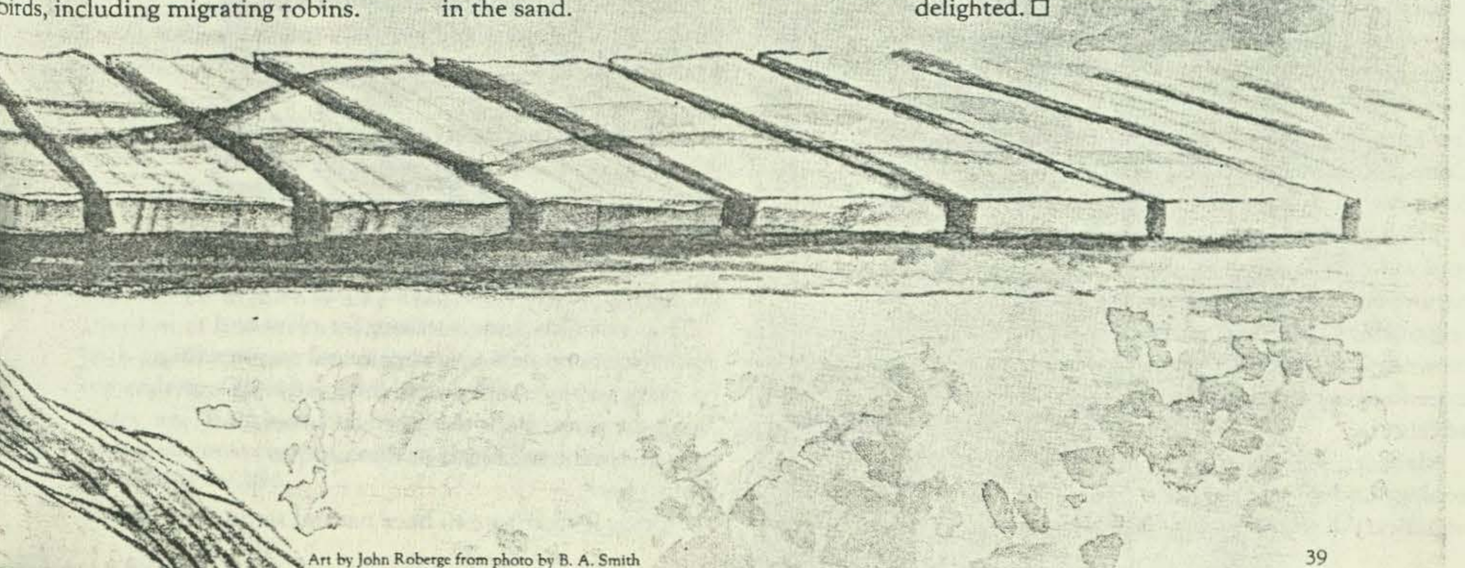
The greatest attraction is always the gopher tortoises. Peppergrass grows profusely here, and the gophers love it. Their burrows are distinctly marked by piles of yellow sand at the doorways. My visits are usually greeted by inhospitable hisses from the gophers below.

Now, the path turns westward and wanders under a row of queen palms, then back to the Australian pines.

Someone else might construct a different kind of nature trail, perhaps bordered by rocks or logs or smoothed and filled with gravel, but I'd rather go 'round than dig up. On some lengths of my trail, pine straw has been spread. It not only provides a beautiful walk, but also fills in sandy spots and muddy holes, and helps prevent weeds from taking over.

If you contemplate such a project, try to complete one section at a time. If you try to shape the entire pathway at once, you may get discouraged with the seemingly slow progress. And, walk it in the sun and rain. You could see something new every day; a crab claw left by a heron, a pile of half-eaten pine cones left by a squirrel, a new flower or a circle of toadstools.

When you walk, take along some sunflower seeds and millet. Toss them in a field. Tuck an apple or orange in the fork of a tree and leave bread or cracked corn along the path. Gather black seeds from periwinkles or dried seeds from marigolds. Scatter, forget, then be delighted. □



Art by John Roberge from photo by B. A. Smith

SUMMER

The Commission's Youth Camps

By Trisha Spillan

Against the deep black night, only the faint glow from the campfire keeps the shadows at bay. As the light breeze shifts, smoke and ash curl and twist, stinging the sleepy eyes of those huddled by the fire.

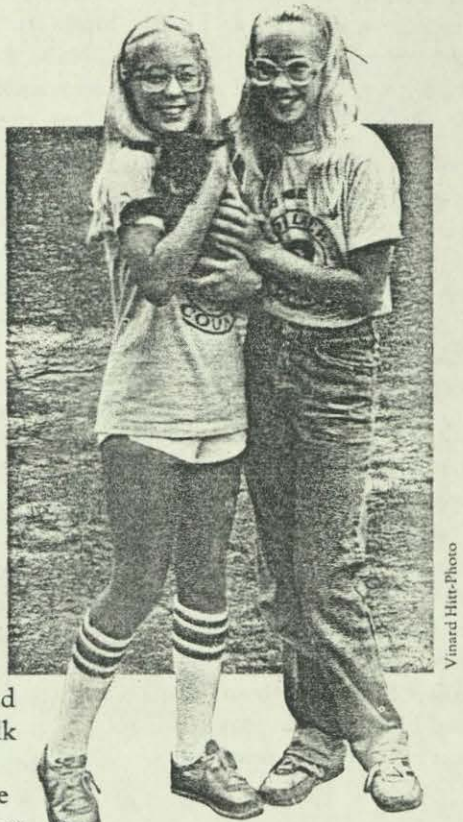
Through the pine trees come the sounds of the woods—crickets, frogs and owls join in the chorus of the night. Talk is hushed, then rises with the telling of a joke. Laughter fills the air, then silence returns and it's only the night sounds that compete with the crackling of the burning logs.

For some, the comradery of the campfire is a familiar feeling. Yet, to many around this fire, it is perhaps a new experience. Here among the piney woods of the Ocala National Forest, they are sharing the warmth and companionship of the fire and friends they have made at the youth conservation camp offered by the Game and Fresh Water Fish Commission.

Each summer, for eight weeks, the Commission offers youngsters the chance to have an outdoor adventure either here at Ocala or in the Everglades. By locating the camps in two of the few remaining wilderness areas in the state, the Commission is able to help develop a conservation awareness in the campers.

These rustic, back-to-nature camps are designed to develop an understanding of man's role in the natural environment, with an emphasis on responsible use of our natural resources. Children between eight and 14 are eligible to attend and experience a comprehensive outdoor-oriented adventure.

Main areas of instruction at both facilities are ecology and outdoor skills, hunter education and aquatics. All areas are supervised by instructors ▷


Vinard Hitt-Photo

Forestry's Program

By Ron Stock
Division of Forestry

What better place is there to learn about the impact of forests on Florida's natural environment than in a forest itself?

This summer, young people from throughout the state will experience environmental adventures within the beautiful Blackwater River and Withlacoochee state forests.

The young campers will be participating in the summer environmental program of the Department of Agriculture and Consumer Services' Division of Forestry. They will explore the wildland setting during week-long educational programs.

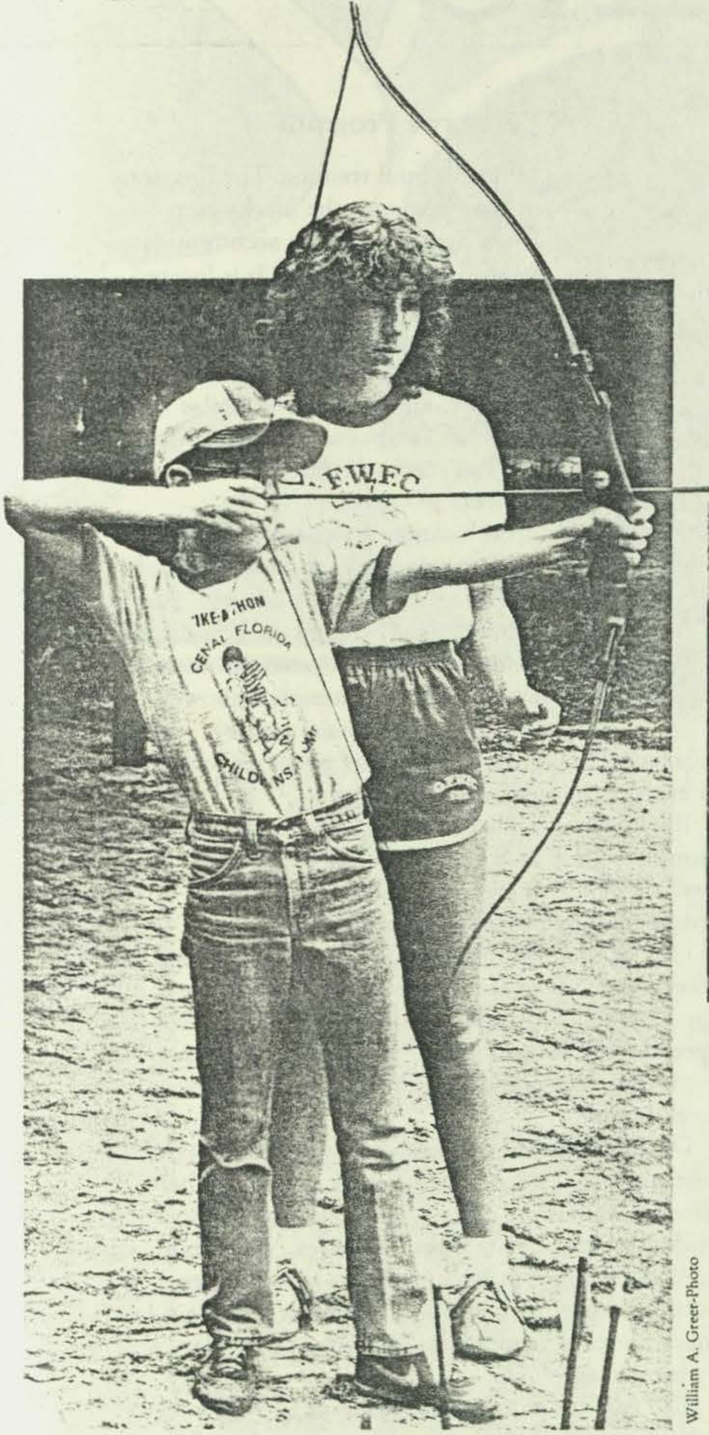
Campers will be guided and supervised by professional foresters and specially trained college students, all of whom have a strong interest in conservation.

Consider just some of the activities these youngsters will experience: canoeing down winding, spring-fed rivers; walking and studying in stands of majestic magnolias, oaks and pines; hearing the piercing shrill of a screech owl; or glimpsing the playful antics of a pair of otters.

They will also seine a stream for plant and animal life, compete in compass and map reading contests, explore soils and plants, and walk quietly along the forest floor during night hikes to experience the wildlands in that unique atmosphere.

Florida is fortunate to have natural settings for ▷

CAMPING



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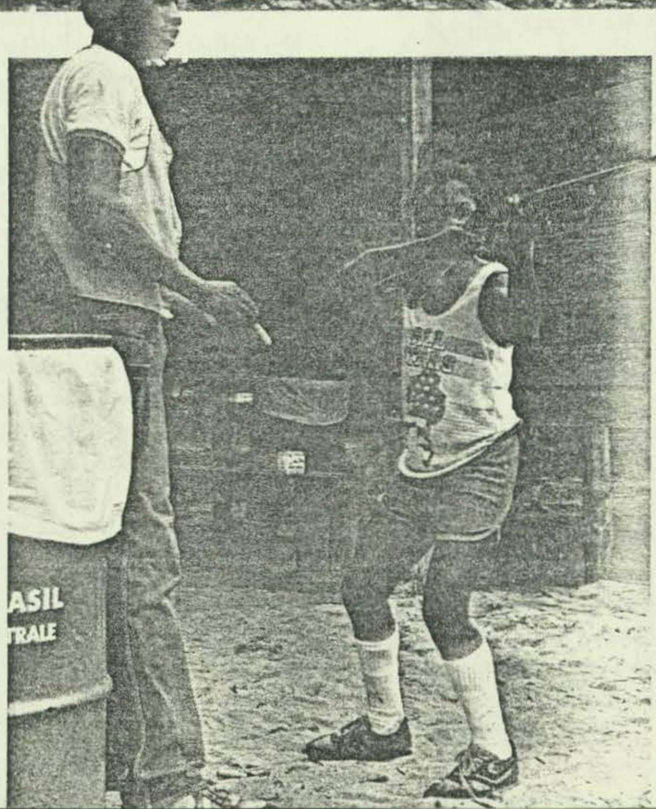


Vinard Hitt-Photo

This summer, youngsters can have a hands-on experience at either the Commission's or the Division of Forestry's summer camps. Emphasis at both facilities is on learning with a lot of fun and comradery. Opportunities to explore the out-of-doors are limitless and campers take home an increased conservation consciousness that will stay with them for life.

SUMMER CAMPING

Commission's Camps

chosen for their knowledge and skills. Safety, responsibility and fun are the themes of all classes.

Two programs are available. The regular program is an intense hands-on course involving everything from learning archery skills to canoeing, swimming, fishing, wildlife conservation and responsible firearms handling.

Campers who are already certified by the Commission's hunter education program have the opportunity to participate in a more rigorous in-depth study of the unique environments of the two camps.

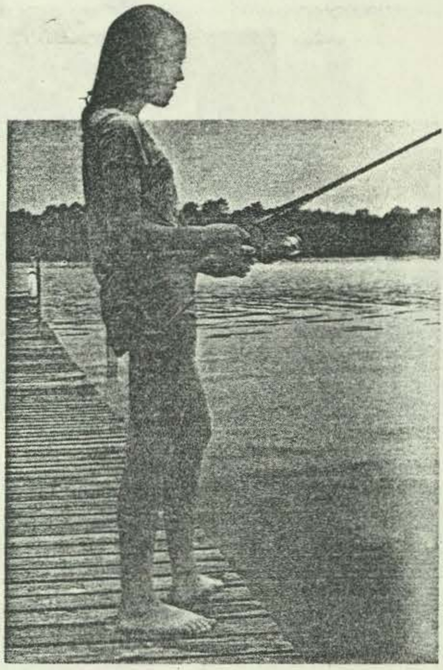
Because of the high number of students who want to attend the camps, the Commission has had to restrict campers to one week each year to allow more children the opportunity to attend.

While at the camps, students are housed in either concrete or wooden cabins with others of their own age and sex. Staff at the camps includes a director, assistant director, an instructor for each area as well as counselors for each cabin. All activities are supervised.

Fee for the one-week sessions is still only $75, which includes housing, meals, accident insurance, emergency and minor medical attention, and incidental camp programs. Sessions begin on June 17, with the last week starting August 5.

Those desiring to attend the conservation camps can choose from the Ocala camp, located on the shores of Lake Eaton among the pines of the Ocala National Forest, or the Everglades facility in Hungryland Slough in the J.W. Corbett Wildlife Management Area. Each facility, because of its unique environmental setting, affords the chance to experience the differences in Florida's landscape, and repeat campers are urged to alternate facilities.

Reservations are made on a first-come, first-served basis and both camps fill fast. For more information on how to attend these conservation camps, write: Ocala Youth Camp Director, 1239 SW Tenth Street, Ocala, FL 32670, or Everglades Youth Camp Director, 551 North Military Trail, West Palm Beach, FL 33406. ☐



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Forestry's Program

environmental training. The Environmental Center at the Blackwater River State Forest can accommodate 48 students per session. It is located approximately 45 miles northeast of Pensacola. The Withlacoochee State Forest Environmental Center is located some 50 miles north of Tampa, near Brooksville, and can accommodate 75 campers per session.

Both camps are coeducational, and field groups are kept small to enable individual exploration of the forest community. Campers are housed in modern, air-conditioned dormitories with bunks and complete shower facilities. There are separate recreation buildings and teaching pavilions located at each of the environmental camps.

Eligible to attend are students who have completed the sixth grade, but not yet entered the twelfth. Students are grouped by age for field studies and by gender for dormitories.

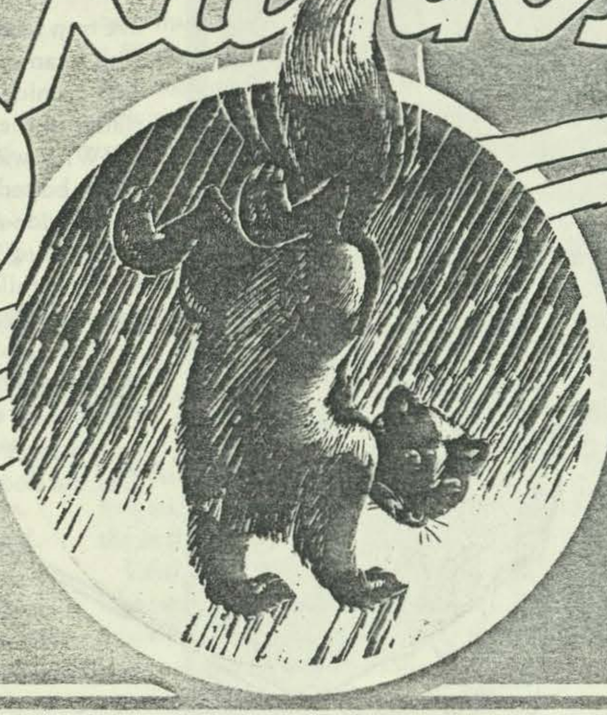
One of the highlights at both camps is a second week of advanced study offering outdoor living for 12 highly motivated students each week. This special week is free and participants are chosen from those attending a regular camp session the week before.

During the advanced sessions, students camp in rustic settings, learn survival skills and study the forest terrain more closely. They also take a more in-depth look at state forest activities. Visits to a seedling nursery, public recreation sites, timber cutting operations and other programs provide these campers a unique insight into present-day forest management.

The cost for a one-week session is $75. The fee includes meals, lodging, teaching materials and insurance. A $25 non-refundable deposit must accompany any application.

For applications or additional information on the program, contact your local Division of Forestry office or write Forest Education Supervisor, Division of Forestry, 3125 Conner Boulevard, Tallahassee, FL 32301. The Forest Education Supervisor may be reached by calling 904/488-7000. ☐

Skunks!



By Biff Lampton

There's a revolution afoot in the land. Anyone with a sense of observation will be quick to note that folks are riding around in big four-wheel drive pickups, wearing cowboy hats and listening to country music.

Just guessing, I'd have to say all these city slickers are bent on trying to enjoy the things those of us who grew up in the outback always took for granted—things like hunting and fishing, redeye gravy over smoked ham and the fresh smell of a newly-cut tree at Christmas time.

But I'm here to advise you that things aren't always so nice in the country. There are indeed some drawbacks these urban cowboys should consider before going whole hog to the sticks. One such incident proved that to me, and finally drove my new bride and I away from the hillbilly ethnic.

It all began late one evening when Lilly and I returned home. There, squatting on the front porch, outlined in the beam of the car's headlight, was a smallish, black and white creature.

"SKUNK!!!" she screeched, as she quickly rolled up the car window. I advised her that the "skunk" was more commonly referred to as a "civet cat," but she wasn't interested in my abstract technicalities.

"I don't care if it's Big Foot himself," she said emphatically. "I won't live with that animal!

"After all, it was you that insisted we settle down miles from established civilization," she protested. "Now you best take care of that skunk and do it quickly!"

Then her voice softened. "But don't hurt him. He's kinda cute."

I tried the old argument that "critters were here before we came," but that failed miserably.

"They don't pay any property tax," she stated. "Therefore, until they come and fork over their fair share, they're trespassers and will hereby be treated as such."

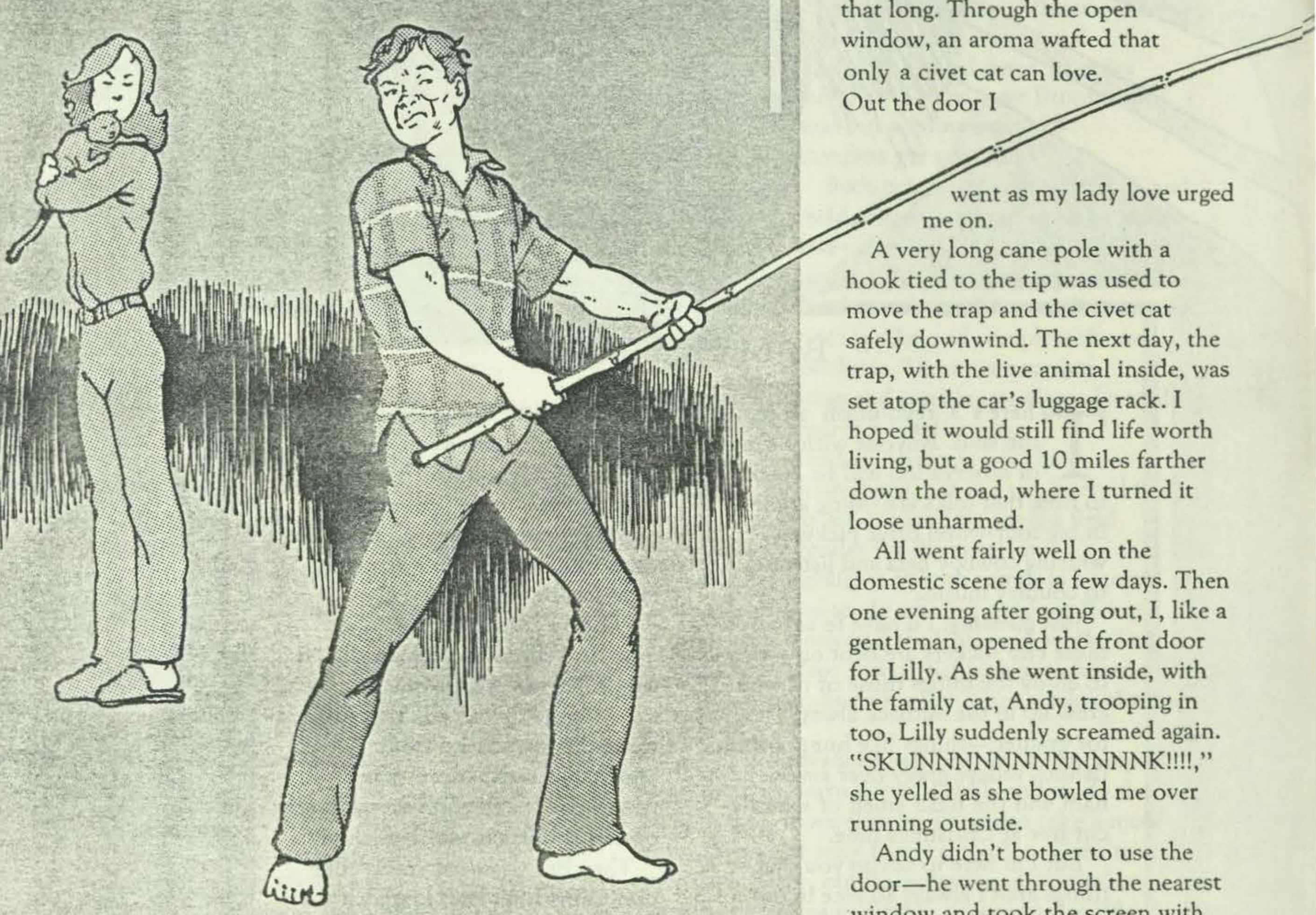
While I was somewhat dismayed with my animal-loving wife's attitude, in the interest of family harmony, I decided to relocate the civet cat. I borrowed a Hav-A-Hart ▷

live trap from a friend, baited it with a can of sardines, and the very next evening was rewarded with the clatter of the trap being sprung.

"What was that?" my lass asked as she bolted upright in bed and stared wide-eyed out the window.

"Nothing. Just your civet cat being corralled. I'll attend to him in the morning," I muttered.

But I didn't get a chance to wait that long. Through the open window, an aroma wafted that only a civet cat can love. Out the door I went as my lady love urged me on.



A very long cane pole with a hook tied to the tip was used to move the trap and the civet cat safely downwind. The next day, the trap, with the live animal inside, was set atop the car's luggage rack. I hoped it would still find life worth living, but a good 10 miles farther down the road, where I turned it loose unharmed.

All went fairly well on the domestic scene for a few days. Then one evening after going out, I, like a gentleman, opened the front door for Lilly. As she went inside, with the family cat, Andy, trooping in too, Lilly suddenly screamed again. "SKUNNNNNNNNNNNNNK!!!!," she yelled as she bowled me over running outside.

Andy didn't bother to use the door—he went through the nearest window and took the screen with him. As I sat up, I saw another civet cat just as it clambered down from the kitchen cabinet and scurried across the floor. It disappeared down a hole near the heater.

Lilly cautiously ventured closer, took an experimental sniff, then vanished inside. When she came back, she thrust a .22 rifle into my hands, and commanded, "Don't come back without a scalp."

"But what about how cute civet cats look?" I pleaded.

"They can be cute in the woods, where they belong," she responded.

So I took up a stand, halfway behind the house and the pump shed, just on the edge of a palmetto clump, thinking I would ambush the critter should it run from beneath the house to the bushes. Within a matter of minutes, I spied the civet cat as it waddled out, on a direct bearing toward the palmettos, right where I was hiding.

I allowed it to approach, but not too closely, before I sighted down along the barrel.

Now, I pride myself on markmanship, but something happened that night. When I touched off the round, the civet cat escaped entirely unharmed. But the water line did not!

A geyser erupted from the ground and fell at such a perfect angle that the rushing stream passed through the window, right into the bedroom.

Wisely, I retreated to repair the pipe. As Lilly slammed the window shut, the sounds from the bedroom were muffled.

Wet, muddy and cold, I stumbled back inside a few hours later to find Lilly and Andy the cat both bayed up on the living room couch. A few yards away, yet another civet cat was dancing along the floor, its tail raised in a decidedly threatening fashion.

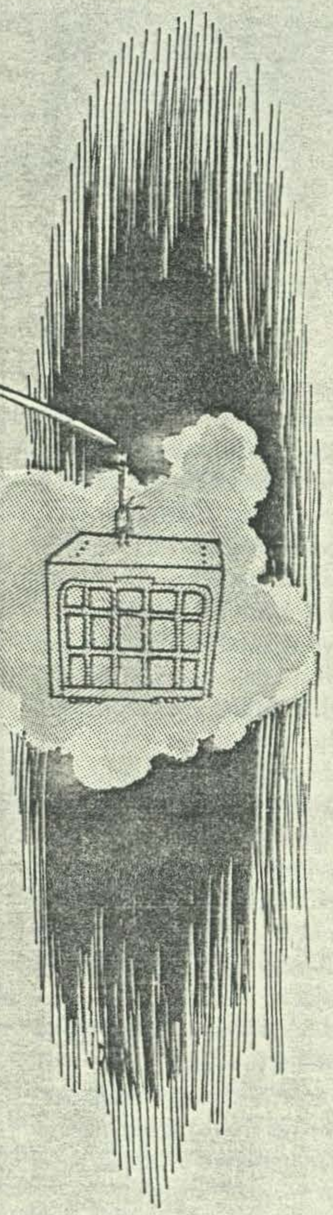
When he saw that reinforcements had arrived, the civet cat fled down the hallway.

I discarded the .22 rifle in favor of a more close-ranging weapon, a baseball bat. I gave the animal cautious chase—until a cloud of scent met me halfway down the hall. It backed me right back out.

Soon, Lilly, Andy and I were all standing in a miserable little group, well away from our country homestead. We could smell it from there.

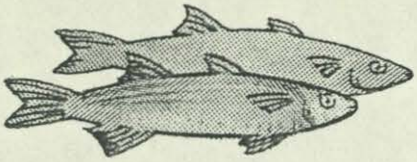
We moved not long afterwards. As I recall, it was about two weeks later, after we could go back inside without gas masks. A few clothes, sheets and such stayed behind, but the majority of our belongings were salvageable.

So that's why today you'll find our family living in suburbia, and me quietly sneering at all those urban cowboys who wish for such good country traditions as redeye gravy over smoked ham, the smell of a newly-cut Christmas tree and the scents of the civet cats. □



Conservation Scene

Compiled by Trisha Spillan



Can Mullet Spawn In Fresh Water?

Mullet previously have not been known to spawn in fresh water, but evidence gathered by the Commission's Division of Fisheries indicates they possibly may.

In a larval fish trawl that was being operated by fisheries personnel in Lake Okeechobee in March, two striped mullet fry were found. Until now, it had been believed that mullet found in Lake Okeechobee migrated into the lake through the St. Lucie Canal of Caloosahatchee River.

However, the two fry were only 1.2 inches long and were believed to be about 90 days old. Fisheries biologists said it was unlikely the small mullet fry could have migrated into the lake in their short life span, since they would have had to travel some 60 miles upstream and negotiate several closed structures.

It is possible these fry represent the first documented evidence that mullet can successfully spawn in fresh water. ☐

New Member For Wildlife Alert Association

David A. Luke of Port Richey was recently appointed by the executive director to a two-year term on the Wildlife Alert Reward Association. Luke represents United Sportsmen of Florida, and will serve as one of three at-large members of the association. Two representatives from each of the Commission's five regions complete the all-volunteer membership. The association oversees the Wildlife Alert program which pays cash rewards for information that results in arrests of violators of Florida's wildlife or freshwater fish laws. ☐

How Fast Do Florida's Alligators Grow?

Among the many things wildlife biologists have been studying concerning the alligator has been the reptiles' growth rate.

Since 1975, alligators on Orange Lake in Alachua County have been captured and tagged. During the eight years of the program, more than 3,500 have been tagged and 1,250 have been recaptured at later dates.

Biologists have noted that between one and two years of age, an alligator grows an average of eight inches—from about one foot and eight inches at age one, to about two feet and four inches at age two years.

During the third year, alligators grow an average of five inches longer, to about two feet and nine inches. By age four years, he is usually around three feet long. For the next three years, growth averages three inches a year and, by the seventh, length averages four feet and two inches.

This rate of growth is far slower than the rates reported by researchers in Louisiana, where alligators reach four feet and two inches in four years. Growth rates of alligators in other Florida wetlands are currently being checked to determine if the Orange Lake alligators are normal or unique. ☐

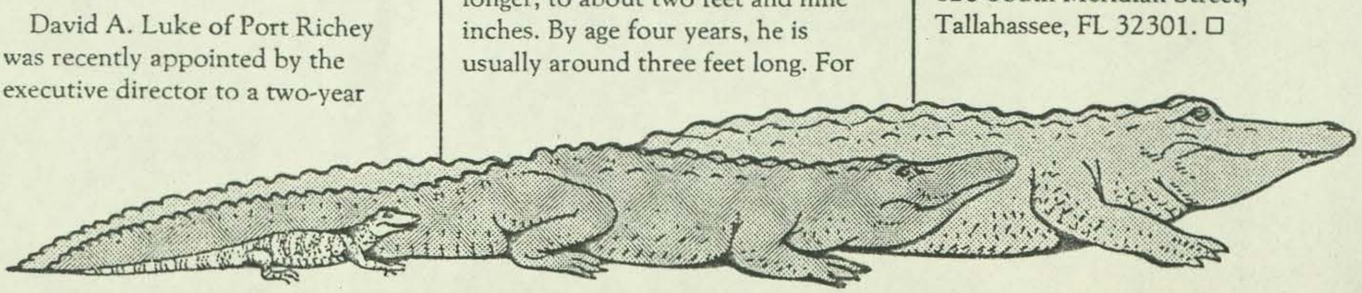
Nongame Plan Outlines Programs

Last November, the Game and Fresh Water Fish Commission hosted a nongame conference in Tallahassee to help develop a nongame wildlife program for Florida.

As a result of the work by the Commission and the Nongame Wildlife Advisory Council, a plan of operations has been developed and presented to Governor Bob Graham and the Florida Legislature.

The 42-page plan not only defines nongame wildlife and details the history of Florida's program, but it also presents a proposed budget, implementation schedule and recommended funding sources.

Persons interested in obtaining copies of "A Plan of Operation for a Nongame Wildlife Program in Florida" can write: Dr. Allan Egbert, Division of Wildlife, Game and Fresh Water Fish Commission, 620 South Meridian Street, Tallahassee, FL 32301. ☐

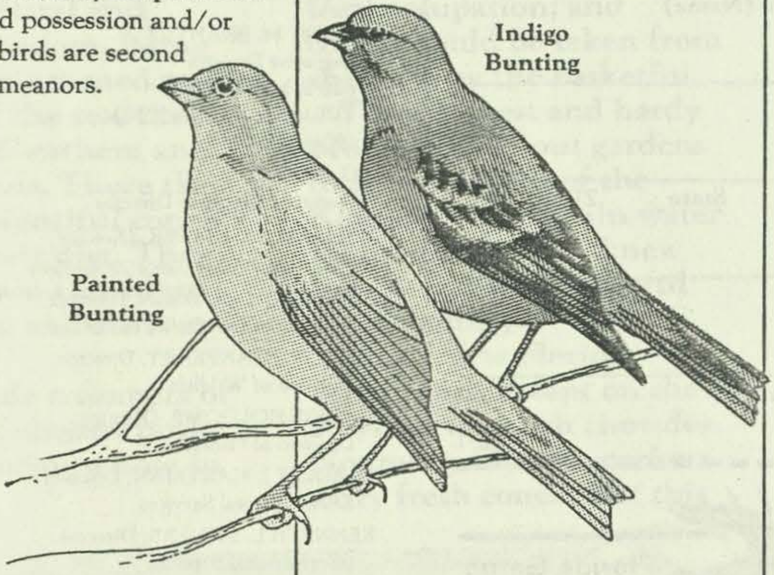


35 Dealers Arrested, 225 Protected Birds Confiscated For Release

With its bright blue-violet head, green back, red rump and underbelly, the painted bunting looks like an exotic bird straight out of the pet shop.

But the painted bunting and its relative, the deep blue indigo bunting, are both natives to south Florida. As such, they are protected under law and possession and/or sale of these birds are second degree misdemeanors.

Although these buntings might resemble pet shop specimens, possession of either the painted or indigo bunting or any other native songbird is illegal. Cardinals and mourning doves are also being captured in the wild and kept as pets.



Since October of last year, wildlife officers in south Florida have made 35 arrests and seized 225 birds in a campaign designed to stop the dealing in these species.

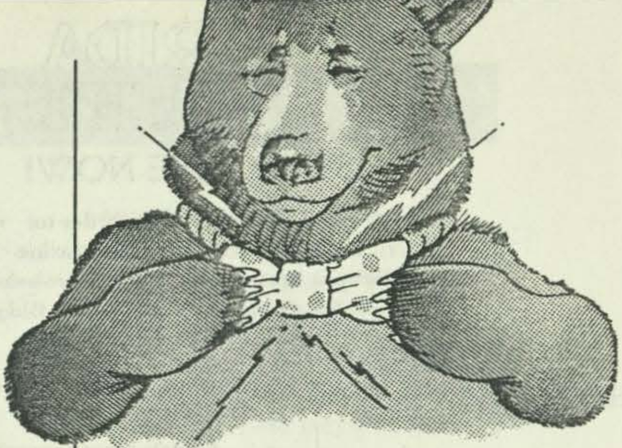
According to officers, during the fall and winter months in Dade County, wildlife profiteers take to the fields armed with bird traps. These trap/cages have a live decoy inside and are baited with bird seed.

Once captured, the birds can sell for as much as $150 per breeding pair to persons who believe it is good luck to keep the birds in their homes. The painted bunting is nicknamed "mariposa" or butterfly, and the indigo bunting is called "azulitos," or little blue. Members of the finch family, these birds are only about five inches long.

Anyone having information concerning the illegal capture or sale of these or any native bird can call the Commission's Wildlife Alert number and report the law violations. Those doing so can remain anonymous and receive a cash reward if an arrest is made. The toll-free numbers are listed on page 48.

In addition, anyone who has a bird he or she suspects might be a native species can call the Commission for a positive identification. If it is, the Division of Law Enforcement will assist in releasing the bird into the wild.

Only English sparows and starlings are considered unprotected species and not covered under state or federal regulations. □



Biologists Track Florida Bears

In spring, Florida's black bears begin stirring from their winter doldrums. With the warmer spring weather, the bears will begin to increase their range, which can cover several thousand acres. At times, they will travel as far as 20 miles, inspired by the breeding season and food availability.

Biologists with the Commission's Division of Wildlife have been snooping into the habits of the black bear under a research program similar to one currently involving the Florida panther. Jim Brady of the Bureau of Wildlife Research said three male black bears were captured and radio-collared last spring.

The trio, which make their home in the Osceola National Forest, have been going about their business while biologists have been electronically monitoring their movements from a distance.

Over the colder winter months, Brady said, locations determined by aerial tracking indicated the bears' movements decreased. Of the three, only two are currently being followed. Biologists have lost track of the third and believe he somehow lost his collar.

Plans call for attempts to be made to capture and collar seven more bears this spring. Since the two now under study are young adult males, Brady would like to include some females in the program. Information from the study will be used in establishing management plans for this species. □

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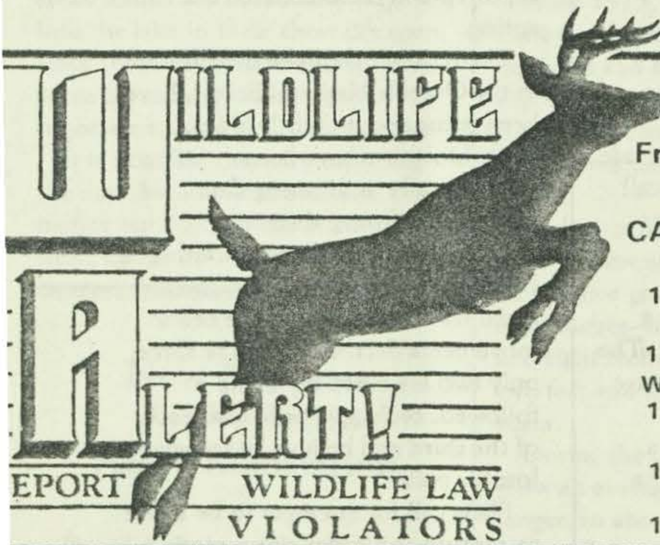

Florida Game and Fresh Water Fish Commission

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Lake City—
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Floridana

Early settlers on the Florida Keys were called "Conchs," because they came from the Bahama Islands where the conch (*Strombus gigas*), a large marine snail, was a staple food. The descendants of these first settlers are still called Conchs.

It all began in 1650, when a company of English families called the "Eleutheran Adventurers" sailed to the Bahamas, seeking political and religious freedom. Being fishing folks attuned to the rhythms of the sea, they settled on Eleuthera and Abaco islands. There they made the plentiful conch a staple of their diet. They cooked it into chowders and fritters, and ate it as salad.

They made trumpets of the conch's elegant pink shells by boring a hole in the spiral end of the shell. Blowing a conch horn could call workers from a half-mile distance. They also used the pretty pink shells to border garden paths.

In time, the children of the Eleutheran Adventurers went adventuring on their own to the Florida Keys, where the turtling and fishing were excellent; "wrecking" (the salvaging of stranded ships) was a legal occupation; and conchs could be taken from the reefs by the basketful.

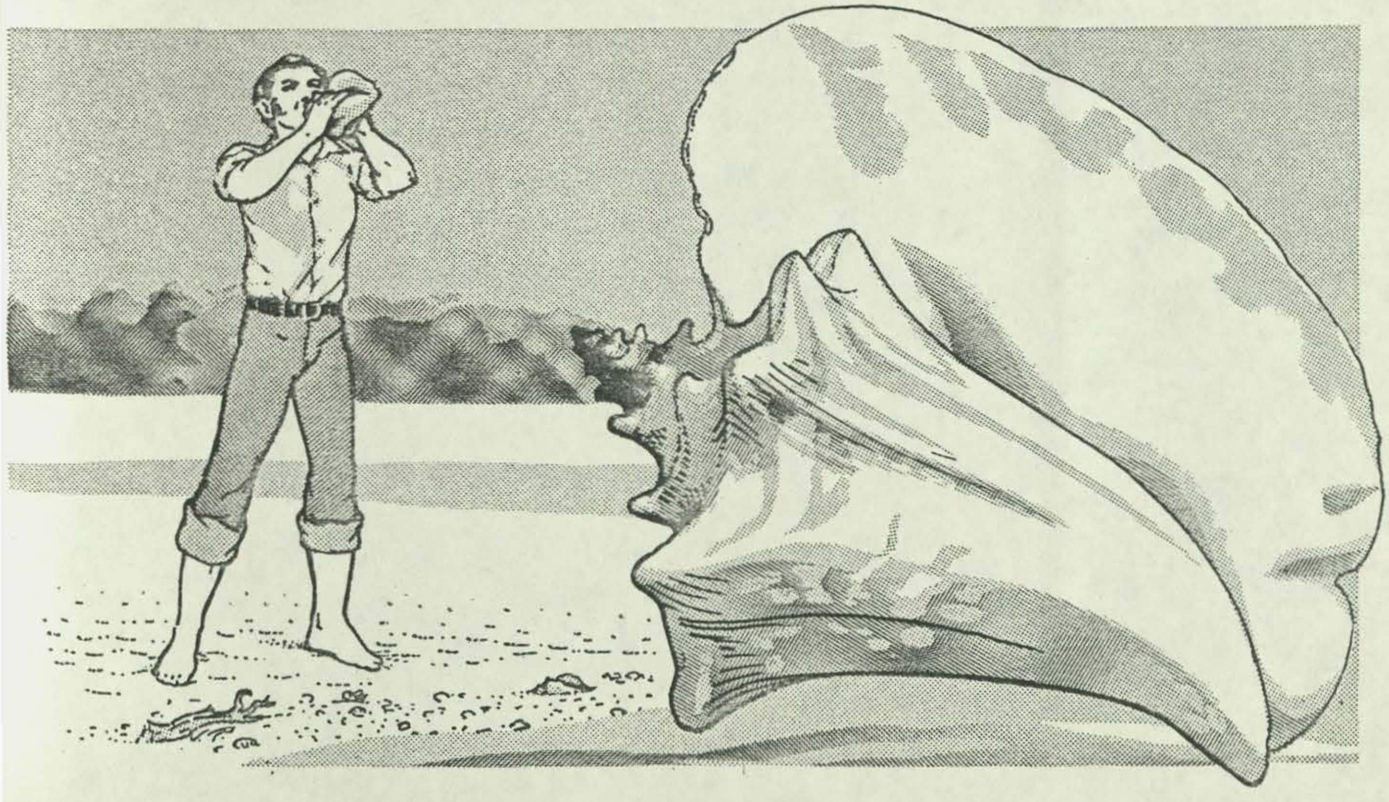
These honest and hardy people hacked out gardens in the rocky soil of the Keys and caught rain water for drinking. They knew the sea and were grateful for its bounty.

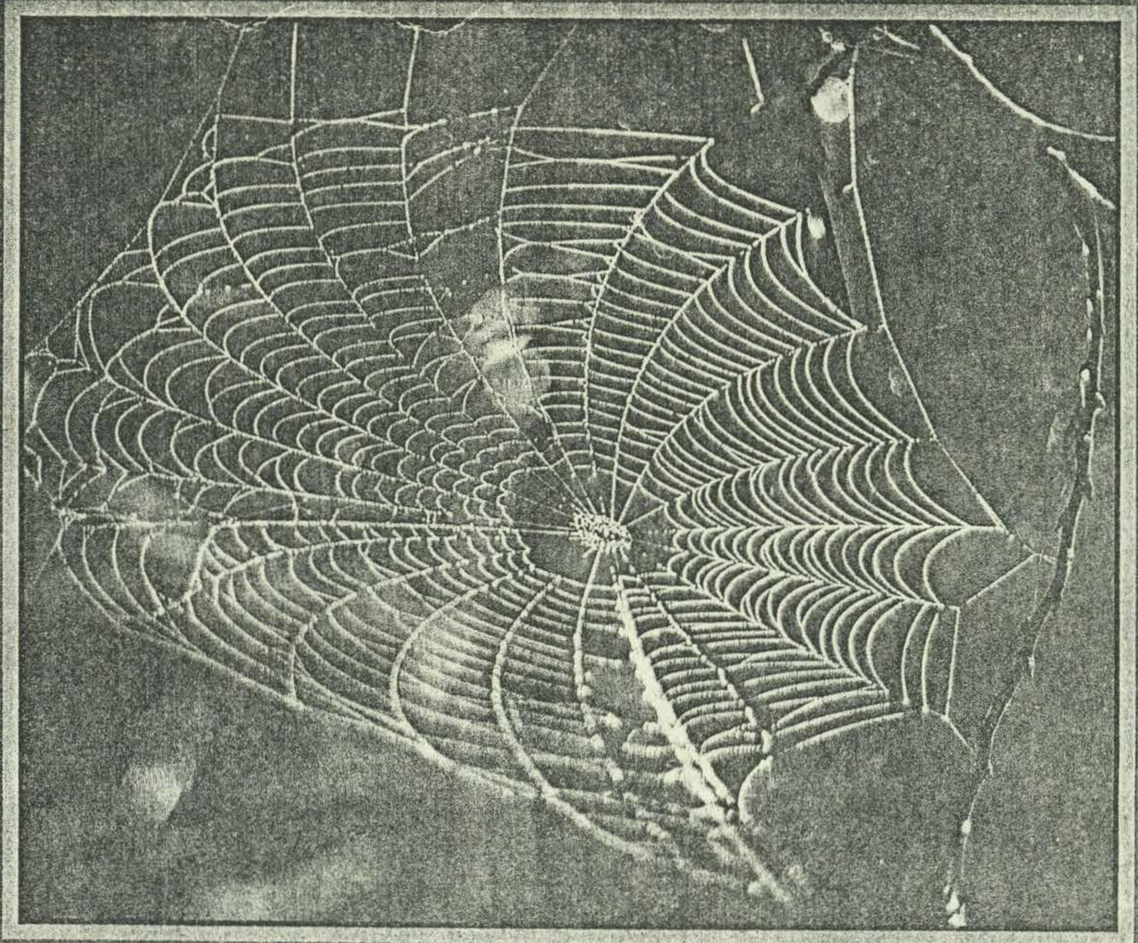
Today, few Florida restaurants, except on the Keys, serve conch chowder. Not many Florida markets carry fresh conch, but this steaming dish, once relished by pirates and wreckers, is tasty. The main ingredients are conch, salt pork, canned tomatoes (or tomato paste), onions, green peppers, potatoes and water. Seasonings such as bay leaves, hot sauce and a bit of vinegar can be added.

If you set out to make conch chowder, be forewarned the conch is tough. You'll have to chop it or score it with a sharp knife, and simmer your chowder for about three hours.

A popular superstition credits the chowder with having a semi-magical strengthening property.

Try it, you may like it. And even if you don't, you may find a new respect for the hardy island Floridians who wear with pride the title, "Conch."—Mary Ellen Smith





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